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WEST Search History

DATE: Thursday, May 30, 2002

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ			
L6	l4 or L5	38	L6
L5	l1 with l3	10	L5
L4	l1 with l2	38	L4
L3	immuniz$	25774	L3
L2	dna! or rna! or plasmid or (nucleic! acid) or retrovir$ or adenovir$ or aav!	166906	L2
L1	bupivicaine or bupivacaine	789	L1

END OF SEARCH HISTORY

Generate Collection | Print

Search Results - Record(s) 1 through 38 of 38 returned.

1. 20020039596. 13 Nov 98. 04 Apr 02. PRODUCTION OF MULTIVESICULAR LIPOSOMES. HARTOUNIAN, HARTOUN, et al. 424/450; A61K009/127.

2. 20020037300. 11 May 01. 28 Mar 02. Semi-solid delivery vehicle and pharmaceutical compositions. Ng, Steven Y., et al. 424/401; 514/772.3 A61K006/00 A61K007/00 A61K047/30.

3. 20020015712. 23 May 00. 07 Feb 02. Temperature controlled solute delivery system. Mcbride, James F., et al. 424/400; A61K009/00.

4. 20020001828. 07 Mar 01. 03 Jan 02. Chemokine-like factors (CKLFs) with chemotactic and hematopoietic stimulating activities. Ma, Dalong, et al. 435/69.5; 424/85.1 435/325 530/351 536/23.5 C12P021/02 C07H021/04 C12N005/06 A61K038/19 A61K045/00 C12N005/00 C12N005/02 C07K001/00 C07K014/00.

5. 20010051595. 21 Jun 01. 13 Dec 01. Medical emulsion for lubrication and delivery of drugs. Lyons, Robert T., et al. 508/491; 508/427 508/428 508/513 514/937 514/938 C10M173/00 A61K009/107.

6. 20010048945. 17 May 01. 06 Dec 01. Biodegradable Compositions for the controlled release of encapsulated substances. Sankaram, Mantripragada Bhima. 424/469; 424/501 A61K009/26 A61K009/50.

7. 6391832. 21 Jun 01; 21 May 02. Medical emulsion for lubrication and delivery of drugs. Lyons; Robert T., et al. 508/491; 508/427 508/428 508/513 514/937 514/938. C10M173/00 A61K009/107.

8. 6383512. 04 Apr 00; 07 May 02. Vesicular complexes and methods of making and using the same. Ciccarelli; Richard B., et al. 424/450; 435/375 435/69.1 514/44. A61K009/127.

9. 6379965. 22 Oct 99; 30 Apr 02. Multifunctional complexes for gene transfer into cells comprising a nucleic acid bound to a polyamine and having an endosome disruption agent. Boutin; Raymond H.. 435/455; 536/23.1. C12N015/63.

10. 6348449. 16 Dec 94; 19 Feb 02. Methods of inducing mucosal immunity. Weiner; David B., et al. 514/44; 424/130.1 424/184.1 424/209.1 435/235.1 435/252.3 435/320.1 435/455 514/2 514/330. A01N043/04 A61K031/70.

11. 6313091. 20 May 98; 06 Nov 01. Pharmaceutical compositions containing TSG-6 for treating inflammatory diseases and cancer-related pathologies and method. Wisniewski; Hans-Georg, et al. 514/12; 435/252.3 435/320.1 435/69.1 514/2 530/350 530/351 530/395 536/23.1. A61K038/00 C07K014/00 C07H021/02 A01N037/18 C12P021/06.

12. 6281175. 24 Mar 00; 28 Aug 01. Medical emulsion for lubrication and delivery of drugs. Lyons; Robert T., et al. 508/491; 508/427 508/428 508/513 514/937 514/938. C10M173/00 A61K009/107.

13. 6277413. 16 Jul 99; 21 Aug 01. Biodegradable compositions for the controlled release of encapsulated substances. Sankaram; Mantripragada. 424/501; 264/4.33 424/502 428/402.21. A61K009/50

B01J013/02 B32B005/16.

☐ 14. 6251872. 17 Oct 97; 26 Jun 01. Nucleic acid vaccines for ehrlichia chaffeensis and methods of use. Barbet; Anthony F., et al. 514/44; 435/320.1 536/23.7. A01N043/04 A61K031/70.

☐ 15. 6248565. 02 Feb 00; 19 Jun 01. Immunization with plasmid encoding immunogenic proteins and intracellular targeting sequences. Williams; William V., et al. 435/69.7; 424/185.1 424/192.1 514/44 530/350 536/23.4 536/23.5. C12P021/04 A61K039/00 A61K031/70 C07K001/00 C07H021/04.

☐ 16. 6228621. 23 Oct 97; 08 May 01. Plasmids encoding immunogenic proteins and intracellular targeting sequences. Williams; William V., et al. 435/69.7; 424/185.1 424/192.1 514/44 530/350 536/23.4 536/23.5. C12P021/04 A61K039/00 A01N043/04 C07K001/00.

☐ 17. 6217900. 05 Oct 99; 17 Apr 01. Vesicular complexes and methods of making and using the same. Ciccarelli; Richard B., et al. 424/450; 536/23.1. A61K009/127.

☐ 18. 6156319. 31 Jul 97; 05 Dec 00. Soluble herpesvirus glycoprotein complex vaccine. Cohen; Gary H., et al. 424/196.11; 424/186.1 424/231.1 536/23.72. A61K039/245 C12M015/38.

☐ 19. 6139538. 06 Oct 97; 31 Oct 00. Iontophoretic agent delivery to the female reproductive tract. Houghton; William C., et al. 604/515; 604/21. A61M031/00 A61N001/30.

☐ 20. 6133244. 12 Feb 97; 17 Oct 00. Method for immunization against hepatitis B. Michel; Marie-Louise, et al. 514/44; 435/320.1. A61K048/00 C12N015/63.

☐ 21. 6127170. 21 Mar 97; 03 Oct 00. Multifunctional complexes for gene transfer into cells comprising a nucleic acid bound to a polyamine and having a endosome disruption agent. Boutin; Raymond H.. 435/320.1; 435/455. C12N015/00 C12N005/00.

☐ 22. 6025338. 17 Oct 96; 15 Feb 00. Nucleic acid vaccines against rickettsial diseases and methods of use. Barbet; Anthony F., et al. 514/44; 435/320.1 536/23.1. C12N015/00 A61K031/70 A61K045/00.

☐ 23. 5981505. 26 Nov 97; 09 Nov 99. Compositions and methods for delivery of genetic material. Weiner; David B., et al. 514/44; 424/278.1 514/615 514/818. A61K045/05 A61K048/00 A61K031/00.

☐ 24. 5874563. 05 Jun 95; 23 Feb 99. Hepatitis G virus and molecular cloning thereof. Kim; Jungsuh P., et al. 536/23.72; 435/5 435/69.3 435/91.2 435/91.33 536/24.3 536/24.32. C07H021/04 C07H021/02 C12Q001/70.

☐ 25. 5856134. 05 Jun 95; 05 Jan 99. Hepatitis G virus and molecular cloning thereof. Kim; Jungsuh P., et al. 435/69.3; 424/189.1. C12P021/02 A61K039/29.

☐ 26. 5849532. 06 Jun 95; 15 Dec 98. Hepatitis G virus and molecular cloning thereof. Kim; Jungsuh P., et al. 435/69.3; 435/252.3 435/320.1 435/69.1. C12N001/21 C12N001/19.

☐ 27. 5837533. 28 Sep 94; 17 Nov 98. Complexes comprising a nucleic acid bound to a cationic polyamine having an endosome disruption agent. Boutin; Raymond H.. 435/320.1;. C12N005/00 C12N150/00.

☐ 28. 5830876. 30 May 95; 03 Nov 98. Genetic immunization. Weiner; David B., et al. 514/44; 424/278.1 514/615 514/818. A61K045/05 A61K048/00 A61K031/00.

☐ 29. 5824507. 19 May 95; 20 Oct 98. Hepatitis G virus and molecular cloning thereof. Kim; Jungsuh P., et al. 435/69.3; 435/5 530/826. C12Q001/70 C12N015/03.

☐ 30. 5817637. 13 Jan 97; 06 Oct 98. Genetic immunization. Weiner; David B., et al. 514/44; 424/278.1 435/975 514/615 514/818. A61K045/05 A61K048/00 A61K031/00.

☐ 31. 5766840. 05 Jun 95; 16 Jun 98. Hepatitis G virus and molecular cloning thereof. Kim; Jungsuh P., et al. 435/5; 530/388.3 530/389.4. C12Q001/70 C07K016/10.

☐ 32. 5593972. 21 Sep 93; 14 Jan 97. Genetic immunization. Weiner; David B., et al. 514/44; 424/278.1 514/615 514/818. A61K045/05 A61K048/00 A61K031/00.

☐ 33. 5466676. 23 Jan 92; 14 Nov 95. Satellite cell proliferation in adult skeletal muscle. Booth; Frank W., et al. 514/44;. C12N015/00.

☐ 34. US005830876A. 30 May 95. 03 Nov 98. Genetic immunization. WEINER, DAVID B, et al. A61K045/05; A61K048/00 A61K031/00.

☐ 35. WO 200210410 A1. Delivering desired polypeptide to individual, by administering to individual vector comprising nucleic acid encoding the polypeptide, and glycoprotein D, its function fragment, or nucleic acid encoding glycoprotein D. SIN, J I, et al. A61K035/00 A61K039/00 A61K048/00 C12N015/63 C12N015/85.

☐ 36. NO 200105021 A, WO 200065058 A1 , AU 200041008 A , EP 1173573 A1. Down-regulating interleukin 5 (IL-5) activity in humans by administering IL-5 and/or an IL-5 analogue, useful in the treatment, prophylaxis or amelioration of asthma or other chronic allergic conditions. KLYSNER, S. A61K031/70 A61K039/00 A61K039/08 A61K039/385 A61K039/39 A61K039:08 A61K048/00 A61P037/00 C07K014/54 C12N000/00 C12N001/19 C12N001/21 C12N005/10 C12N015/24 C12N015/70 C12N015/86 G01N033/68.

☐ 37. US 2001048945 A1, WO 200003660 A1 , AU 9950030 A , NO 200100264 A , EP 1098610 A1 , US 6277413 B1. Lipid polymer containing pharmaceutical composition for controlled-release of active agent comprises biodegradable microsphere having matrix with biodegradable polymer and lipid and active agent. SANKARAM, M B, et al. A61F002/02 A61F013/02 A61K009/20 A61K009/26 A61K009/48 A61K009/50 B01J013/02 B32B005/16.

☐ 38. WO 9416737 A1, AU 9462320 A , ZA 9400493 A , EP 681483 A1 , JP 08509694 W , US 5593972 A , AU 675702 B , HU 73099 T , NZ 262582 A , EP 681483 A4 , US 5817637 A , US 5830876 A , US 5981505 A , HU 219767 B , RU 2174845 C2. Method for introducing genetic material into cells - utilises polynucleotide function enhancer and nucleic acid free of retroviral particles, e.g. HIV immunisation. CONEY, L R, et al. A61K000/00 A61K031/00 A61K031/165 A61K031/235 A61K031/445 A61K031/70 A61K045/05 A61K048/00 C07K000/00 C12N015/09 C12N015/12 C12N015/31 C12N015/33 C12N015/48 C12N015/67.

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=> s bupivicaine
L1 222 BUPIVICAINE

=> s dna or rna or plasmid or (nucleic acid) or virus? or retrovir? or adenovir? or aav or viral?
2 FILES SEARCHED...
L2 4564679 DNA OR RNA OR PLASMID OR (NUCLEIC ACID) OR VIRUS? OR RETROVIR?
OR ADENOVIR? OR AAV OR VIRAL?

=> s l1 and l2

L3 3 L1 AND L2

=> s immuniz?

L4 275387 IMMUNIZ?

=> s l1 and l4

L5 3 L1 AND L4

=> dup rem l3
PROCESSING COMPLETED FOR L3
L6 2 DUP REM L3 (1 DUPLICATE REMOVED)

=> dup rem l5
PROCESSING COMPLETED FOR L5
L7 2 DUP REM L5 (1 DUPLICATE REMOVED)

=> s l6 or l7
L8 3 L6 OR L7

=> d l8 ibib abs 1-3

L8 ANSWER 1 OF 3 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1995:38090 BIOSIS
DOCUMENT NUMBER: PREV199598052390
TITLE: Chronic pain and immunity: Mononeuropathy alters immune responses in rats.
AUTHOR(S): Herzberg, U. (1); Murtaugh, M.; Beitz, A. J.
CORPORATE SOURCE: (1) Dep. Vet. Pathobiol., Univ. Minn., St. Paul, MN 55108
USA
SOURCE: Pain, (1994) Vol. 59, No. 2, pp. 219-225.
ISSN: 0304-3959.
DOCUMENT TYPE: Article
LANGUAGE: English
AB In order to investigate the possible relationship between chronic pain and
the immune system, delayed-type hypersensitivity (DTH) and humoral immunity were assessed in Sprague-Dawley rats subjected to unilateral peripheral mononeuropathy induced by sciatic ligation. Paw withdrawal latency (PWL) time was measured twice during the experiment in animals subjected to sciatic nerve ligation or sham surgery. Sciatic nerve-ligated animals showed hyperalgesia in the leg subjected to neural ligation when compared to the contralateral leg. No differences in PWL times existed in sham-operated animals. In order to exclude possible alterations in immune response due to the surgical procedure or to the hyperalgesia testing, a group of control animals, not subjected to surgical procedures or hyperalgesia testing, was also included in the experiment. Three days post-sciatic ligation or sham surgery, both experimental and control animals were sensitized to keyhole limpet hemocyanin (KLH). A secondary
sensitization followed 1 week after the initial ***immunization*** . Fourteen days after the initial sensitization, KLH was injected into the hind foot pad and vehicle into the contralateral foot pad in order to assess DTH. One group of rats subjected to sciatic nerve ligation was tested for DTH in the hind foot pad ipsilateral to the ligated nerve, while another group was tested in the contralateral foot pad. Twenty-four hours following foot pad injections, the thickness of both paws was measured and animals were bled to test for anti-KLH immunoglobulins. Animals in which mononeuropathy was induced, but not sham-operated or control animals, exhibited an enhanced DTH response to KLH. This enhanced
DTH response occurred both ipsilateral and contralateral to the ligated nerve. This increased response was blocked in both cases by the local anesthetic ***bupivicaine*** . Two sham-surgery groups and a normal control group were tested similarly. Gamma-immunoglobulin levels against
KLH were significantly reduced in the hyperalgesic animals when compared
to control animals but were similar when compared to sham-operated animals. This study suggests that chronic nociception causes significant alterations in immune function and strengthens the hypothesis that chronic pain can influence the immune system.

L8 ANSWER 2 OF 3 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 1999415241 EMBASE
TITLE: Modulation by drugs of human hepatic sodium-dependent bile
acid transporter (sodium taurocholate cotransporting polypeptide) activity.
AUTHOR: Kim R.B.; Leake B.; Cvetkovic M.; Roden M.M.; Nadeau J.;
Walubo A.; Wilkinson G.R.
CORPORATE SOURCE: Dr. R.B. Kim, Medical Research Building 1-572, Division of
Clinical Pharmacology, Vanderbilt Univ. School of Medicine, Nashville, TN 37232-6600, United States.
richard.kim@mcmail.vanderbilt.edu
SOURCE: Journal of Pharmacology and Experimental Therapeutics, (1999) 291/3 (1204-1209).
Refs: 26
ISSN: 0022-3565 CODEN: JPETAB
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Adequate bile flow, maintained in part by the efficient enterohepatic recirculation of bile acids, is critical for normal liver function. One important component of this process is the uptake of bile acids from the portal circulation into hepatocytes by the bile acid uptake transporter sodium taurocholate cotransporting polypeptide (NTCP). Thus, the expression and functional activity of this transporter may affect the rate of bile acid removal from the portal circulation. Accordingly, we assessed NTCP mRNA expression from human livers using a sensitive RNase protection
assay. In addition, the ability of various bile acids and drugs to inhibit NTCP activity was determined using a recombinant vaccinia expression system. A 40- fold interindividual variability was found in NTCP mRNA levels determined in eight liver samples of disease-free donors. Expressed NTCP exhibited high- affinity, sodium-dependent uptake of taurocholate, and as expected, this was markedly inhibited by bile acids and organic anions. A number of drugs, including peptidomimetic renin inhibitors, propranolol, cyclosporin, and progesterone, were found to be potent inhibitors, whereas antiarrhythmic agents, including ***bupivicaine*** , lidocaine, and quinidine, were found to enhance NTCP activity. Accordingly, these results indicate that large interindividual variability exists in NTCP mRNA level and that a number of drugs currently in clinical
use have the potential to interact with and alter NTCP activity, thereby affecting hepatic bile acid uptake.

L8 ANSWER 3 OF 3 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 1999-494077 [41] WPIDS
DOC. NO. CPI: C1999-144774
TITLE: New hepatitis ***virus*** nucleic acids for, e.g. inducing an immune response against the ***virus*** .
DERWENT CLASS: B03 B04 D16
INVENTOR(S): ENCKE, J; WANDS, J
PATENT ASSIGNEE(S): (GEHO) GEN HOSPITAL CORP
COUNTRY COUNT: 85
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9938880	A1	19990805	(199941)*	EN	41

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL
OA PT SD SE SZ UG ZW

W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD
GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV
MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT
UA UG US UZ VN YU ZW
AU 9924786 A 19990816 (200002)
EP 1056762 A1 20001206 (200064) EN
R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU NL PT SE
BR 9908540 A 20001128 (200067)
CN 1289339 A 20010328 (200140)
MX 2000007470 A1 20010201 (200168)
JP 2002501737 W 20020122 (200211) 50
KR 2001086226 A 20010910 (200219)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9938880	A1	WO 1999-US1823	19990128
AU 9924786	A	AU 1999-24786	19990128
EP 1056762	A1	EP 1999-904381	19990128
		WO 1999-US1823	19990128
BR 9908540	A	BR 1999-8540	19990128
		WO 1999-US1823	19990128
CN 1289339	A	CN 1999-802481	19990128
MX 2000007470	A1	MX 2000-7470	20000728
JP 2002501737	W	WO 1999-US1823	19990128
		JP 2000-529347	19990128
KR 2001086226	A	KR 2000-708307	20000729

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9924786	A Based on	WO 9938880
EP 1056762	A1 Based on	WO 9938880
BR 9908540	A Based on	WO 9938880
JP 2002501737	W Based on	WO 9938880

PRIORITY APPLN. INFO: US 1998-73156P 19980130
AN 1999-494077 [41] WPIDS
AB WO 9938880 A UPAB: 19991011
NOVELTY - A recombinant ***nucleic*** ***acid*** molecule comprising a nucleotide sequence encoding a hepatitis C ***virus*** nonstructural protein, is new.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:
(1) a recombinant host cell comprising the ***nucleic*** ***acid*** ; and
(2) a composition comprising the ***nucleic*** ***acid*** operably linked to regulatory elements functional in human cells and a carrier.
USE - The ***nucleic*** ***acid*** and the composition are useful for inducing an immune response (cellular or humoral) against hepatitis C ***virus*** in a human uninfected by the ***virus*** , and for ***immunizing*** a human susceptible to hepatitis C ***viral*** infection by inducing an immune response (claimed). The composition is also useful for treating a human infected with hepatitis C ***virus*** , by administering to induce an immune response (claimed). Mice were ***immunized*** intramuscularly three times with mock ***DNA*** or a pApNS5 vector containing ***DNA*** encoding NS5 protein. One week after the last ***immunization*** , 2 x 106 syngeneic SP2/0 derived cells expressing NS5 were resuspended in 200 mu l PBS and inoculated into the right flank. Tumor formation was assessed 15 days after inoculation. A large tumor formed in mice inoculated with mock ***DNA*** (control), whereas prior ***immunization*** with NS5 prevented tumor formation.
ADVANTAGE - Unlike synthetic peptides which only have a limited number of epitopes available for stimulation of the host repsonse, the new recombinant ***nucleic*** ***acid*** is more suitable for ***immunization*** .
Dwg.0/4

=> s bupivacaine
L9 30374 BUPIVACAINE

=> d his

(FILE 'HOME' ENTERED AT 15:03:59 ON 30 MAY 2002)

FILE 'BIOSIS, EMBASE, MEDLINE, WPIDS, HCAPLUS' ENTERED AT 15:04:10 ON 30 MAY 2002
L1 222 S BUPIVICAINE
L2 4564679 S DNA OR RNA OR PLASMID OR (NUCLEIC ACID) OR VIRUS? OR RETROVIR
L3 3 S L1 AND L2
L4 275387 S IMMUNIZ?
L5 3 S L1 AND L4
L6 2 DUP REM L3 (1 DUPLICATE REMOVED)
L7 2 DUP REM L5 (1 DUPLICATE REMOVED)
L8 3 S L6 OR L7
L9 30374 S BUPIVACAINE

=> s l9 and l2
L10 320 L9 AND L2

=> s l9 and l4
L11 86 L9 AND L4

=> s l10 or l11
L12 329 L10 OR L11

=> dup rem l12
PROCESSING COMPLETED FOR L12
L13 214 DUP REM L12 (115 DUPLICATES REMOVED)

=> s l13 and py<1993
1 FILES SEARCHED...
3 FILES SEARCHED...
4 FILES SEARCHED...
L14 46 L13 AND PY<1993

=> d l14 ibib abs 1-46

L14 ANSWER 1 OF 46 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1993:142842 BIOSIS
DOCUMENT NUMBER: PREV199395075642
TITLE: Arterial delivery of myoblasts to skeletal muscle.
AUTHOR(S): Neumeyer, Ann M. (1); Digregorio, Debra M.; Brown, Robert H., Jr.
CORPORATE SOURCE: (1) Day Lab. Neuromuscular Res., Mass. Gen. Hosp. East, Build. 149 5th St., Charleston, Mass. 02129
SOURCE: Neurology, (1992) Vol. 42, No. 12, pp. 2258-2262. ISSN: 0028-3878.
DOCUMENT TYPE: Article
LANGUAGE: English
AB One of the major limitations of myoblast implantation as a therapy for muscular disease is that multiple injections by intramuscular implantation may be required for widespread delivery of cells. Also, some sites (eg, the diaphragm) are relatively inaccessible to injection. As an alternative, we have undertaken intra-arterial administration of myoblasts. For these experiments, we used donor cell myoblasts from the immortal L6 cell line labeled with lacZ via the beta-gal-at-gal ***retrovirus*** . In our model, target rat skeletal muscle (tibialis anterior (TA)) was injured using 0.5 ml of 0.5% ***bupivacaine*** and 15 IU of hyaluronidase; saline was injected into contralateral side as a control. We infused 3 times 10-6 lacZ-positive cells into the abdominal aorta of previously injured, immunosuppressed (cyclosporine A) rats. At 7, 14, and 28 days, TA, liver, heart, lung, and spleen were examined for lacZ staining. In both the injured and control muscles, a few differentiated, lacZ-positive muscle cells were present, both singly and in groups, at each time point. These studies demonstrate that genetically labeled, transformed myoblasts may migrate from the arterial circulation to muscle and fuse there to form differentiated muscle cells. It is conceivable that intra-arterial delivery of myoblasts may have a role in the therapy of selected diseases of skeletal muscle.

L14 ANSWER 2 OF 46 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1992:478467 BIOSIS
DOCUMENT NUMBER: BA94:109842
TITLE: COORDINATED EXPRESSION OF PHOSPHORYLASE KINASE SUBUNITS IN
REGENERATING SKELETAL MUSCLE.
AUTHOR(S): CAWLEY K C; AKITA C G; WINEINGER M A; CARLSEN R C; GORIN F
A; WLASH D A
CORPORATE SOURCE: DEP. BIOLOGICAL CHEMISTRY, SCHOOL MEDICINE, UNIVERSITY
CALIFORNIA, DAVIS, CALIF. 95616.
SOURCE: J BIOL CHEM, (1992) 267 (24), 17287-17295.
CODEN: JBCHA3. ISSN: 0021-9258.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB The developmental expression of the .alpha., .beta., and .gamma. subunits
of skeletal muscle phosphorylase kinase has been examined in regenerating
muscle. Rat extensor digitorum longus (EDL) muscles, treated with ***bupivacaine*** , promptly undergo a rapid degeneration of the muscle,
followed by regeneration and recovery of essential normal morphology and
physiology by 3-4 weeks post-treatment (Hall-Craggs, E. C. B; and Seyan, H. S. (1975) (Exp. Neurol. 46, 345-354). Phosphorylase kinase activity dropped to .apprx. 10% of control within 3 days of ***bupivacaine*** treatment and remained at this low level for several days but had attained at least 60% of normal levels by day 21. The pH 6.8/8.2 activity ratio was unusually high during the period of low activity, suggesting that the catalytic activity was not under normal regulation at this time. The subunit mRNAs were readily detected in control EDL but were undetectable
at day 3 post- ***bupivacaine*** treatment. Very small amounts of message for all three subunits were evident by day 6 and began to approach
normal levels by day 12-15. The mRNA for both the .alpha. and .alpha.' subunits of phosphorylase kinase exhibited a similar pattern of recovery, as did also the mRNA for phosphorylase. In contrast to both phosphorylase
kinase and phosphorylase, actin mRNA exhibited a quite a different pattern, with a nearly full recovery of message levels by day 6 post- ***bupivacaine*** . These data indicate that synthesis of phosphorylase and the .alpha., .beta., and .gamma. subunits of phosphorylase kinase appears to be coordinately regulated at the level of message accumulation and that the expression of phosphorylase kinase activity is likely to be also regulated post-transcriptionally.

L14 ANSWER 3 OF 46 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1992:197634 BIOSIS
DOCUMENT NUMBER: BR42:90709
TITLE: CONTINUOUS INFUSION OF INTRATHECAL MORPHINE TO CONTROL
ACQUIRED IMMUNODEFICIENCY SYNDROME-ASSOCIATED BLADDER PAIN.
AUTHOR(S): JONSSON E; COOMBS D W; HUNSTAD D; RICHARDSON J R JR; VON
REYN C F; SAUNDERS R L; HEANEY J A
CORPORATE SOURCE: DEP. ANESTHESIOL., DARTMOUTH HITCHCOCK MED. CENT., HANOVER,
NEW HAMPSHIRE 03756.
SOURCE: J. Urol. (Baltimore), (1992) 147 (3 PART 1), 687-689.
CODEN: JOURAA. ISSN: 0022-5347.
FILE SEGMENT: BR; OLD
LANGUAGE: English

L14 ANSWER 4 OF 46 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1990:233022 BIOSIS
DOCUMENT NUMBER: BR38:111160
TITLE: SYMPATHETIC BLOCKADE IN ACUTE AND SUBACUTE SHINGLES A LONG
TERM FOLLOW UP STUDY.
AUTHOR(S): WHIZAR-LUGO V; TELLEZ-AMEZCUA M
CORPORATE SOURCE: PAIN CLINIC AND ANESTHESIA SERV., CENTRO MEDICO DEL
NOROESTE, TIJUANA, B. C., MEXICO.
SOURCE: SIXTH WORLD CONGRESS ON PAIN, ADELAIDE, SOUTH AUSTRALIA,
AUSTRALIA, APRIL 1-6, 1990. PAIN, (1990) 0 (SUPPL 5), S489.
CODEN: PAINDB. ISSN: 0304-3959.
DOCUMENT TYPE: Conference
FILE SEGMENT: BR; OLD
LANGUAGE: English

L14 ANSWER 5 OF 46 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1990:217882 BIOSIS
DOCUMENT NUMBER: BA89:115172
TITLE: STABLE INCORPORATION OF A BACTERIAL GENE INTO ADULT RAT
SKELETAL MUSCLE IN-VIVO.
AUTHOR(S): THOMASON D B; BOOTH F W
CORPORATE SOURCE: DEP. PHYSIOL. AND CELL BIOL., UNIV. TEXAS MED. SCH. AT
HOUSTON, HOUSTON, TEXAS 77225.
SOURCE: AM J PHYSIOL, (1990) 258 (3 PART 1), C578-C582.
CODEN: AJPHAP. ISSN: 0002-9513.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB We have developed a novel technique to incorporate and stably express foreign genes in adult rat skeletal muscle in vivo. Endogenous satellite cells in skeletal muscle regenerating from ***bupivacaine*** damage were infected with an injected ***retrovirus*** containing the Escherichia coli .beta.-glactosidase gene under the promoter control of the Moloney murine leukemia ***virus*** long-terminal repeat. Constitutive and stable expression of .beta.-galactosidase activity was observed in muscle fibers after 6 days and 1 mo of muscle regeneration. Two patterns of expression were observed, diffuse expression within fibers
and focal expression associated with the sarcolemma. This technique will allow future experiments with muscle-specific genes and promoters to study
the physiological regulation of skeletal muscle gene expression in the intact adult mammal. Furthermore, the technique of stimulating stem cell proliferation to allow ***retroviral*** -mediated gene transfer may be generally applicable to other tissues.

L14 ANSWER 6 OF 46 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1987:245502 BIOSIS
DOCUMENT NUMBER: BR32:120760
TITLE: PHARMACOLOGIC WEAKENING OF THE LATERAL PTERYGOID MUSCLE AND
CONDYLAR CARTILAGE GROWTH.
AUTHOR(S): HINTON R J
CORPORATE SOURCE: BAYLOR COLL. DENT., DALLAS, TEX.
SOURCE: 65TH GENERAL SESSION OF THE INTERNATIONAL ASSOCIATION FOR
DENTAL RESEARCH AND THE ANNUAL SESSION OF THE AMERICAN
ASSOCIATION FOR DENTAL RESEARCH, CHICAGO, ILLINOIS, USA,
MARCH 11-15, 1987. J DENT RES, (1987) 66 (SPEC ISSUE MAR),
267.
CODEN: JDREAF. ISSN: 0022-0345.
DOCUMENT TYPE: Conference
FILE SEGMENT: BR; OLD
LANGUAGE: English

L14 ANSWER 7 OF 46 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1985:366532 BIOSIS
DOCUMENT NUMBER: BA80:36524
TITLE: TOXICITY OF LOCAL ANESTHETICS ON MYOGENIC CELLS IN CULTURE.
AUTHOR(S): HAGIWARA Y; OZAWA E
CORPORATE SOURCE: DIV. CELL BIOL., NATL. CENT. NERV. MENT. MUSC. DISORD.,
KODAIRA, TOKYO, 187, JPN.

SOURCE: J PHARMACOBIO-DYN, (1985) 8 (2), 106-113.
CODEN: JOPHDQ. ISSN: 0386-846X.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB Toxicity of local anaesthetics [***bupivacaine*** and dibucaine] on chick myogenic cells (mononucleated myoblasts and multinucleated myotubes)
in culture was examined. Following treatment with the drugs, myogenic cells showed some morphological changes and finally detached from the culture dishes. In most cases, the toxic effect was estimated quantitatively by the number of cells detached. The indices used showed the number of cells were the ***DNA*** and creatine kinase activity content of mono- and multinucleated cells remaining on the dishes, respectively. Dibucaine was more toxic than ***bupivacaine*** , mepivacaine, tetracaine and procaine, and was examined in detail. The toxicity was dependent on its concentration, pH and temperature of the reaction medium in both mono- and multinucleated cells, and paralleled the
concentration of uncharged form of the drug, suggesting that this form in external medium was actually toxic.

L14 ANSWER 8 OF 46 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1984:230429 BIOSIS
DOCUMENT NUMBER: BA77:63413
TITLE: HEPATITIS B ***VIRUS*** TRANSMISSION ASSOCIATED WITH A
MULTIPLE DOSE VIAL IN A HEMO DIALYSIS UNIT.
AUTHOR(S): ALTER M J; AHTONE J; MAYNARD J E
CORPORATE SOURCE: HEPATITIS BRANCH, DIV. VIRAL DISEASES, CENTERS DISEASE
CONTROL, BUILD. 7, SB 10, ATLANTA, GA 30333.
SOURCE: ANN INTERN MED, (1983) 99 (3), 330-333.
CODEN: AIMEAS. ISSN: 0003-4819.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB Of 61 patients in a maintenance hemodialysis center, 10 seroconverted to
hepatitis B surface antigen (HBsAg)-positive in August 1981. All but one were negative for antibody to hepatitis B core antigen, indicating early infection, and all received dialysis on the same days. Findings of case-control study showed that all cases received dialysis after the early morning shift, compared to 50% of controls (P = 0.01), and all cases used a multiple-dose vial of local anesthetic (***bupivacaine***), compared to 58% of controls (P = 0.03). At a common area used to prepare medications, an HBsAg carrier apparently stuck herself with a needle before drawing up ***bupivacaine*** , thus contaminating the vial that then served as the vehicle of transmission. Of 11 susceptible patients (those negative for antibody to HBsAg) who subsequently used ***bupivacaine*** and received dialysis, 10 seroconverted to HBsAg-positive, giving an attack rate of 91%. Serum samples from 6 of the
10 cases were subtype Ad (or Adw), as was the implicated carrier's serum.

L14 ANSWER 9 OF 46 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1980:221014 BIOSIS
DOCUMENT NUMBER: BA70:13510
TITLE: LOCAL ANESTHETICS AND WOUND HEALING.
AUTHOR(S): CHVAPIL M; HAMEROFF S R; O'DEA K; PEACOCK E E JR
CORPORATE SOURCE: DEP. SURG., UNIV. ARIZ. HEALTH SCI. CENT., TUCSON, ARIZ.
85724, USA.
SOURCE: J SURG RES, (***1979 (RECD 1980)***) 27 (6), 367-371.
CODEN: JSGRA2. ISSN: 0022-4804.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB The effects of local anesthetics, lidocaine and ***bupivacaine*** , were tested in tissue cultures of 3T3 [embryonic Swiss albino mouse] and WI-38 [embryonic human female lung] fibroblasts, in slices of newborn rat skin and in vivo in granuloma tissue induced by s.c. implantation of stainless steel cylinder in rats. The effects on the synthesis or amounts of ***DNA*** , collagen, glycosaminoglycans (GAG), noncollagenous proteins, and the activity of prolyl hydroxylase were studied. Irrespective of the biological system used, both anesthetics inhibit the synthesis of collagen to a greater extent than noncollagenous proteins. The synthesis of GAG was inhibited but the synthesis and amount of ***DNA*** were unaffected. Local anesthetics apparently inhibit wound
healing by inhibiting the synthesis of major structural macromolecules, collagen and GAG.

L14 ANSWER 10 OF 46 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1980:57419 BIOSIS
DOCUMENT NUMBER: BR18:57419
TITLE: TREATMENT OF ACUTE HERPES ZOSTER NEURALGIA BY EPIDURAL
INJECTION OR STELLATE GANGLION BLOCK.
AUTHOR(S): BAUMAN J
CORPORATE SOURCE: ST. JOHNS HOSP. HEALTH CENT., 1328 22ND AVE., SANTA MONICA,
CALIF. 90404, USA.
SOURCE: 1979 ANNUAL MEETING OF THE AMERICAN SOCIETY OF
ANESTHESIOLOGISTS. ANESTHESIOLOGY, (1979) 51 (3 SUPPL),
S223.
CODEN: ANESAV. ISSN: 0003-3022.
DOCUMENT TYPE: Conference
FILE SEGMENT: BR; OLD
LANGUAGE: English

L14 ANSWER 11 OF 46 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1979:197311 BIOSIS
DOCUMENT NUMBER: BA67:77311
TITLE: EFFECTS OF MARCAINE A MYO TOXIC DRUG ON MACRO MOLECULAR
SYNTHESIS IN MUSCLE.
AUTHOR(S): JOHNSON M E; JONES G H
CORPORATE SOURCE: DIV. BIOL. SCI., DEP. CELL. MOL. BIOL., UNIV. MICH., ANN
ARBOR, MICH. 48109, USA.
SOURCE: BIOCHEM PHARMACOL, (1978) 27 (13), 1753-1758.
CODEN: BCPCA6. ISSN: 0006-2952.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB The effects of marcaine (***bupivacaine***) on ***RNA*** and protein synthesis in skeletal muscle were studied. The drug did not affect ***RNA*** synthesis by pieces of rat tibialis anterior at concentrations as high as 0.5% (w/v [wt/vol]), nor did it affect cell-free transcriptin of calf thymus ***DNA*** by wheat germ ***RNA*** polymerase II. In
contrast, marcaine inhibited protein synthesis by muscle chunks, and also inhibited [3H]leucine incorporation by cell-free components prepared from muscle. Specifically, the drug significantly inhibited aminoacylation of muscle tRNA with the amino acids leucine, methionine, lysine and valine (50-90%) at a concentration of 0.5% and also inhibited elongation of polypeptide chains at the same concentration. Marcaine (0.5%) also inhibited aminoacylation of tRNA in cell-free systems derived from rat liver and from murine myeloma RPC-20, but it did not inhibit as strongly as in skeletal muscle. Marcaine (0.5%) had no effect on the acylation of tRNA with leucine, methionine, lysine or valine when cell-free components
from Escherichia coli were used.

L14 ANSWER 12 OF 46 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1978:197038 BIOSIS
DOCUMENT NUMBER: BA66:9535
TITLE: EPIDURAL INJECTION OF LOCAL ANESTHETIC AND STEROIDS FOR
RELIEF OF PAIN SECONDARY TO HERPES ZOSTER.
AUTHOR(S): PERKINS H M; HANLON P R
CORPORATE SOURCE: DEP. ANESTHESIOL., J. HILLIS MILLER HEALTH CENT., UNIV.
FLA. COLL. MED., BOX J-254, GAINESVILLE, FLA. 32610, USA.
SOURCE: ARCH SURG, (1978) 113 (3), 253-254.
CODEN: ARSUAX. ISSN: 0004-0010.
FILE SEGMENT: BA; OLD
LANGUAGE: English
AB Twelve cases [human] of cutaneous herpex zoster (HZ) were treated

with
epidural ***bupivacaine*** and methylprednisolone acetate. Treatment was effective for HZ of less than 7 wk duration. The course of HZ of greater than 3 mo. duration (post-herpetic neuralgia) was not improved. The administration of epidural ***bupivacaine*** plus methylprednisolone acetate was no more effective than when ***bupivacaine*** alone was used. Epidural injection of ***bupivacaine*** with or without methylprednisolone acetate is the treatment of choice for the pain of cutaneous HZ.

L14 ANSWER 13 OF 46 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 91349269 EMBASE
DOCUMENT NUMBER: 1991349269
TITLE: Diagnosis and therapy of herpes zoster ophthalmicus.
AUTHOR: Liesegang T.J.
CORPORATE SOURCE: Mayo Clinic Jacksonville, 4500 San Pablo Rd,Jacksonville,
FL 32224, United States
SOURCE: Ophthalmology, (1991) 98/8 (1216-1229).
ISSN: 0161-6420 CODEN: OPHTDG
COUNTRY: United States
DOCUMENT TYPE: Journal; Conference Article
FILE SEGMENT: 004 Microbiology
008 Neurology and Neurosurgery
012 Ophthalmology
013 Dermatology and Venereology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Studies in the basic and clinical sciences have yielded new information about the biology, infection, latency, and recurrence of the varicella-zoster ***virus*** . Contrast is made with the herpes simplex ***virus*** . The host- ***viral*** relationship is an extremely dynamic one with clinical disease being determined primarily by the host cellular immune system. The complications of herpes zoster ophthalmicus are related to multiple mechanisms including ***viral*** growth, vascular and neural damage, and the host-immune response to infection. There are several laboratory tests available for confirming the diagnosis or determining the immune status. Systemic acyclovir administered early in
the course alleviates many of the symptoms of herpes zoster ophthalmicus. Acute and postherpetic neuralgia remain significant and enigmatic problems; an update of therapeutic options is offered. The role of corticosteroids in herpes zoster ophthalmicus is scrutinized along with the potential and uncertainties of a varicella-zoster ***virus*** vaccine.

L14 ANSWER 14 OF 46 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 91329549 EMBASE
DOCUMENT NUMBER: 1991329549
TITLE: [Treatment of pain due to herpes zoster infection and post-herpetic neuralgia].
DIE BEHANDLUNG VON ZOSTER-NEURALGIEN.
AUTHOR: Wulf H.; Maier Ch.; Schele H.-A.
CORPORATE SOURCE: Abteilung Anasthesiologie und Operative Intensivmedizin,
Klinikum der Christian-Albrechts-Universitat, Schwanenweg 21, W-2300 Kiel, Germany
SOURCE: Anaesthesist, (1991) 40/10 (523-529).
ISSN: 0003-2417 CODEN: ANATAE
COUNTRY: Germany
DOCUMENT TYPE: Journal; (Short Survey)
FILE SEGMENT: 004 Microbiology
024 Anesthesiology
037 Drug Literature Index
LANGUAGE: German
SUMMARY LANGUAGE: English; German
AB Neuralgic pain during or following herpes zoster infection is a common problem in pain therapy. The current management of neuralgias due to zoster is discussed with reference to patients in a chronic pain clinic within an anesthesiology department. The courses of 80 patients followed up for at least 3 months from the pain clinic at the University Hospital in Kiel were analyzed. The mean age was 69 years. The predominant locations for zoster lesions werre the thoracic segments (65%) and the first branch of the trigeminal nerve (19%). Diabetes mellitus was present in 20% of the patients and malignant disease in 18%. In 2 patients recurrent postherpetic neuralgia was the first symptom of HIV infection. Despite pretreatment, the mean initial pain score was 8 on an analog scale (range 0-10). Acute herpes zoster pain during the infection was treated with ***virustatic*** agents, corticosteroids and sympathetic blocks. Postherpetic neuralgias required a more sophisticated approach, depending on the stage of the disease and the type of pain involved: sympathetic blockade with local anesthetic agents or injections of very low dose opioids to sympathetic ganglia, transcutaneous electrical nerve stimulation, and antidepressants or anticonvulsants. The success of the therapy is correlated with the duration of pain. If the history of zoster pain was less than 1 month, the majority of patients showed good or excellent results. On the other hand, only one-third of patients with a history longer than 6 months had adequate pain relief. Therefore, early and appropriate treatment is desirable for patients suffering from zoster neuralgias.

L14 ANSWER 15 OF 46 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 91038043 EMBASE
DOCUMENT NUMBER: 1991038043
TITLE: Management of postherpetic neuralgia.
AUTHOR: Manchikanti L.
CORPORATE SOURCE: Department of Anesthesiology, Lourdes Hospital, Paducah,
KY, United States
SOURCE: Anesthesiology Review, (1990) 17/6 (25-34).
ISSN: 0093-4437 CODEN: ANTHD8
COUNTRY: United States
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 008 Neurology and Neurosurgery
024 Anesthesiology
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English

L14 ANSWER 16 OF 46 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 90376940 EMBASE
DOCUMENT NUMBER: 1990376940
TITLE: [Effective penicillin therapy in a patient with craniofacial pain with postive serologies for syphilis and human immunodeficiency ***virus*** (HIV)].
TRATAMIENTO EFICAZ CON PENICILINA EN UN PACIENTE CON ALGIAS
CRANEOFACIALES PORTADOR DE SEROLOGIAS LUETICA Y DEL
VIRUS DE LA IMMUNODEFICIENCA HUMANA (VIH)
POSITIVAS.
AUTHOR: De Santos P.; Moreno L.A.; Carrero E.; Galard J.J.; Nalda
M.A.
CORPORATE SOURCE: Servicio de Anestesiologia y Reanimacion, Clinica de
Tratamiento del Dolor, Hospital Clinic i Provincial, Barcelona, Spain
SOURCE: Revista Espanola de Anestesiologia y Reanimacion, (1990)
37/4 (246-247).
ISSN: 0034-9356 CODEN: REANBJ
COUNTRY: Spain
DOCUMENT TYPE: Journal; Letter
FILE SEGMENT: 008 Neurology and Neurosurgery
026 Immunology, Serology and Transplantation
028 Urology and Nephrology
047 Virology
037 Drug Literature Index
LANGUAGE: Spanish

L14 ANSWER 17 OF 46 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 90301187 EMBASE
DOCUMENT NUMBER: 1990301187
TITLE: Herpes labialis in parturients receiving epidural morphine following cesarean section.
AUTHOR: Crone L.-A.L.; Conly J.M.; Storgard C.; Zbitnew A.; Cronk
S.L.; Rea L.M.; Greer K.; Berenbaum E.; Tan L.K.; To T.

CORPORATE SOURCE: Department of Anesthesia, University Hospital, University
of Saskatchewan, Saskatoon, Sask., Canada
SOURCE: Anesthesiology, (1990) 73/2 (208-213).
ISSN: 0003-3022 CODEN: ANESAV
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 024 Anesthesiology
047 Virology
037 Drug Literature Index
038 Adverse Reactions Titles
LANGUAGE: English
SUMMARY LANGUAGE: English
AB A significant association exists between the use of epidural morphine (EM), reactivation of herpes labialis (HL) commonly known as coldsores, and pruritus in the obstetric population. A randomized prospective study was designed to eliminate previously identified confounding variables. Immediately following delivery, parturients having undergone cesarean section with epidural anesthesia with carbonated lidocaine (Xylocaine.RTM.
CO2, Astra, Mississauga, Ontario, Canada) with 1:200,000 epinephrine were
sequentially randomized to receive either EM or im opioids for postoperative analgesia. One blood sample was collected for ***viral*** serology and two mouthwashes (day 0 and 2) were collected to determine oral ***viral*** shedding. The patients were observed daily for 5 days. Coldsores were cultured for herpes simplex ***virus*** (HSV). Of
187 patients, 96 received EM and 91 im opioids; herpes labialis occurred in 14 of 96 (14.6%) of the former but in 0 of 91 of the latter (P = 0.0004). All 14 experienced facial pruritus. The two groups were at equal risk for reactivation (seropositivity 64.6% and 62.6%, respectively). Analysis of data for those with positive HSV serology reveals 14 of 62 (22.5%) had EM and herpes labialis compared with 0 of 57 in the im group
($P < 0.000$). The incidence of oral ***viral*** shedding was low. Surgical stress, the local anesthetic solution, and epinephrine addition to the local anesthetic were eliminated as confounders. Stepwise logistic regression analysis revealed that EM and a history of herpes labialis in these patients were predictive for reactivating oral HSV.

L14 ANSWER 18 OF 46 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 90131032 EMBASE
DOCUMENT NUMBER: 1990131032
TITLE: The best of the FIX.RTM..
AUTHOR: Silverberg J.M.
CORPORATE SOURCE: Department of Pharmacy, Seton Medical Center, Austin, TX
78705-1056, United States
SOURCE: Hospital Pharmacy, (1990) 25/1 (49-53).
ISSN: 0018-5787 CODEN: HOPHAZ
COUNTRY: United States
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 037 Drug Literature Index
LANGUAGE: English

L14 ANSWER 19 OF 46 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 87054510 EMBASE
DOCUMENT NUMBER: 1987054510
TITLE: Sensory and sympathetic nerve blocks for postherpetic neuralgia.
AUTHOR: Lilley J.-P.; Su W.P.D.; Wang J.K.
CORPORATE SOURCE: Department of Anesthesiology, Mayo Clinic and Mayo
Foundation, Rochester, MN 55905, United States
SOURCE: Regional Anesthesia, (1986) 11/4 (165-167).
CODEN: RGANDZ
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
024 Anesthesiology
047 Virology
LANGUAGE: English

L14 ANSWER 20 OF 46 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 86096867 EMBASE
DOCUMENT NUMBER: 1986096867
TITLE: A treatment of herpes zoster.
AUTHOR: Fothergill W.T.; Ninaber V.; Thick G.C.
CORPORATE SOURCE: Streekziekenhuis, Bennekom, Netherlands
SOURCE: Practitioner, (1985) 229/1406 (747, 749).
CODEN: PRACAK
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
008 Neurology and Neurosurgery
047 Virology
013 Dermatology and Venereology
LANGUAGE: English
AB Prevention of post herpetic neuralgia may be achieved by treating herpes zoster in the acute phase, blocking the appropriate posterior nerve roots with local analgesic solution - the sooner the better after the appearance of the rash.

L14 ANSWER 21 OF 46 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 86059366 EMBASE
DOCUMENT NUMBER: 1986059366
TITLE: Treatment of herpes zoster with sympathetic blocks.
AUTHOR: Tenicela R.; Lovasik D.; Eaglstein W.
CORPORATE SOURCE: Pain Control Center, Presbyterian-University Hospital,
University of Pittsburgh School of Medicine, Pittsburgh, PA 15213, United States
SOURCE: Clinical Journal of Pain, (1985) 1/2 (63-67).
CODEN: CJPAEU
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 038 Adverse Reactions Titles
037 Drug Literature Index
024 Anesthesiology
013 Dermatology and Venereology
047 Virology
008 Neurology and Neurosurgery
LANGUAGE: English
AB Twenty patients with acute herpes zoster participated in a double-blind placebo-controlled study using sympathetic nerve blocks. Ten patients received sympathetic nerve blocks using a local anesthetic and 10 received a placebo. The local anesthetic was effective in resolving acute herpetic neuralgia in 90% of the patients while the placebo was effective in 20%. This difference is significant at the $p < 0.01$ level. While the exact mechanism of action of the sympathetic blockade in relieving zoster pain is not understood, the immediate relief afforded by sympathetic blocks is, however, gratifying and favors its use when available.

L14 ANSWER 22 OF 46 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 85138366 EMBASE
DOCUMENT NUMBER: 1985138366
TITLE: [Treatment of pain in cases of acute herpes zoster and post-herpetic neuralgia].
TRATTAMENTO DEL DOLORE NELL'HERPES ZOSTER ACUTO E NELLA
NEVRITE POST-HERPETICA.
AUTHOR: Bassino P.; Bandini M.; Dal Tio R.
CORPORATE SOURCE: U.S.L. Regione Valle d'Aosta, Presidio Ospedaliero,
Servizio di Anestesia, Rianimazione e Terapia del Dolore, Aosta, Italy
SOURCE: Minerva Anestesiologica, (1985) 51/1-2 (45-50).
CODEN: MIANAP
COUNTRY: Italy
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
024 Anesthesiology
013 Dermatology and Venereology
047 Virology
008 Neurology and Neurosurgery
LANGUAGE: Italian
SUMMARY LANGUAGE: English
AB 27 cases of herpes zoster were treated in one year. The patients were aged
from 28 to 76. 12 subjects were undergoing the acute phase and 15 were

suffering from post-hepatic neuralgia. Patients with acute herpes zoster were treated by a sympathetic nerve block and subsequently TENS or EAL.

Patients with post-herpetic neuralgia were treated only by TENS or EAL. Overall results were very good. It was found that either sympathetic nerve blocks or TENS must be initiated as soon as possible for effective results.

L14 ANSWER 23 OF 46 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 85093687 EMBASE
DOCUMENT NUMBER: 1985093687
TITLE: Nontraditional analgesics for the management of postherpetic neuralgia.
AUTHOR: Thompson M.; Bones M.
CORPORATE SOURCE: College of Pharmacy, Florida Agricultural and Mechanical University, Tallahassee, FL 32307, United States
SOURCE: Clinical Pharmacy, (1985) 4/2 (170-176).
CODEN: CPHADV
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
030 Pharmacology
008 Neurology and Neurosurgery
047 Virology
LANGUAGE: English
AB The pathogenesis and clinical manifestations of herpes zoster and postherpetic neuralgia and the use of nontraditional analgesics in the management of postherpetic neuralgia are reviewed. Herpes zoster represents the reactivation in an immunocompromised host of dormant varicella-zoster ***virus*** (Herpesvirus varicellae) contracted during a previous episode of chickenpox. Fever, neuralgia, and paresthesia occur four to five days before skin lesions develop. Acute herpes zoster pain usually does not last more than two weeks after all skin lesions have healed. Postherpetic neuralgia is defined as pain that persists in the affected dermatomes after the disappearance of all skin crusts. The neuralgia can vary from 'lightninglike' stabbing pain to constant, burning pain with hyperesthesia; it can persist for years and is often refractory to traditional analgesic therapy. A number of nontraditional analgesic agents have been used in the management of postherpetic neuralgesia. Tricyclic antidepressants, especially amitriptyline, have been used alone and in combination with phenothiazines or anticonvulsants (carbamazepine, phenytoin, valproate sodium), with good results. The effectiveness of phenothiazines or anticonvulsants as sole therapeutic agents has not been demonstrated. Although the intralesional administration of corticosteroids appears to be beneficial, considerable fear about the potential for these agents to precipitate widespread ***viral*** dissemination exists. Positive results have been reported with levodopa, amantadine, and interferon, but the role of these agents in the prevention of postherpetic neuralgia remains unclear. Nontraditional analgesic agents are useful in the management of postherpetic neuralgia, but patients must be selected and monitored appropriately. A tricyclic antidepressant (especially amitriptyline) is a reasonable first choice.

L14 ANSWER 24 OF 46 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 85035021 EMBASE
DOCUMENT NUMBER: 1985035021
TITLE: Time course of changes in protein synthesis in marcaine-induced skeletal muscle regeneration.
AUTHOR: Jones G.H.
CORPORATE SOURCE: Department of Cellular and Molecular Biology, Division of Biological Sciences, The University of Michigan, Ann Arbor, MI 48109, United States
SOURCE: Mechanisms of Ageing and Development, (1984) 27/3 (373-381).
CODEN: MAGDA3
COUNTRY: Ireland
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
008 Neurology and Neurosurgery
023 Nuclear Medicine
LANGUAGE: English
AB The time course of the regeneration of rat skeletal muscle has been examined after injection of the myotoxic drug, Marcaine, to induce regeneration. Muscle wet weight decreases during the initial phase of the regeneration process while the ability of the regenerating muscle to incorporate [35S]methionine into protein, the yield and activity of muscle polysomes and the yield of total and poly(A) + ***RNA*** all increase initially. Following the initial changes, these parameters return to near control values by 30 days after Marcaine injection. Theoretical calculations suggest that the changes in polysome yield and activity are sufficient to account for the changes in the ability of muscle fragments to synthesize protein during the regeneration process. The specific activity of total muscle ***RNA*** in the wheat germ cell-free system decreases initially during the early stages of the regeneration process. This decrease may reflect the fact that while the yields of both total and poly(A) + ***RNA*** increase during the early stages of regeneration, the percentage of the total ***RNA*** which is poly(A) + decreases initially.

L14 ANSWER 25 OF 46 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 85012543 EMBASE
DOCUMENT NUMBER: 1985012543
TITLE: Postoperative liver damage and halothane. Should we stop using halothane for adult patients?.
AUTHOR: Raeder J.; Kvande G.; Dale Breivik O.H.
CORPORATE SOURCE: Anestesiavdelingen, Regionsykehuset i Trondheim, 7000 Trondheim, Norway
SOURCE: Tidsskrift for den Norske Laegeforening, (1984) 104/30 (2097-2099+2116).
CODEN: TNLAAH
COUNTRY: Norway
DOCUMENT TYPE: Journal
FILE SEGMENT: 038 Adverse Reactions Titles
037 Drug Literature Index
024 Anesthesiology
009 Surgery
030 Pharmacology
052 Toxicology
LANGUAGE: Norwegian
SUMMARY LANGUAGE: English
AB Two patients died after abdominal surgery with reoperations and a complicated postoperative course with massive liver damage. Both patients were exposed to halothane twice. Although it is impossible to exclude halothane as the cause of the liver damage in these two patients, other causes such as ***viral*** hepatitis, drug reactions, sepsis, and complications from ulcerative colitis also cannot be excluded. Since enflurane is considered not to be a hepatotoxic drug, we now use enflurane when a potent inhalation anaesthetic is indicated for adult patients. When isoflurane becomes available in Norway, we will prefer to use it. However, halothane associated hepatitis is very rare in patients below the age of 20. Inhalation induction with halothane is more pleasant and we therefore still prefer halothane for paediatric anaesthesia.

L14 ANSWER 26 OF 46 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 85012490 EMBASE
DOCUMENT NUMBER: 1985012490
TITLE: Management of post-herpetic neuralgia.
AUTHOR: Parris W.C.V.
CORPORATE SOURCE: Department of Anesthesiology, Vanderbilt University Hospital, Nashville, TN 37232, United States
SOURCE: Journal of the Tennessee Medical Association, (1984) 77/10 (575-578).
CODEN: JTMAAM
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
032 Psychiatry
008 Neurology and Neurosurgery
047 Virology
LANGUAGE: English
AB The authors presented a case of postherpetic neuralgia successfully managed by a series of stellate ganglion blocks, drug detoxification, intensive psychotherapy and behavior modification. This patient, who was

otherwise disabled for two years, was enabled to return to gainful employment and a meaningful family life.

L14 ANSWER 27 OF 46 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 84247609 EMBASE
DOCUMENT NUMBER: 1984247609
TITLE: Managing skin damage induced by doxorubicin hydrochloride and daunorubicin hydrochloride.
AUTHOR: Cox R.F.
CORPORATE SOURCE: Department of Pharmacy, Brockton Hospital, Brockton, MA 02402, United States
SOURCE: American Journal of Hospital Pharmacy, (1984) 41/11 (2410-2414).
CODEN: AJHPA
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 038 Adverse Reactions Titles
037 Drug Literature Index
030 Pharmacology
013 Dermatology and Venereology
LANGUAGE: English
AB The pathophysiology and mechanisms of toxicity of anthracycline-induced skin damage are reviewed, and the various available therapeutic interventions are discussed. Skin ulcers caused by the vesicant antineoplastic agents doxorubicin hydrochloride and daunorubicin hydrochloride begin slowly, and the extent of the tissue damage produced is often underestimated. Within a week, untreated infiltrations of these agents can advance to serious indurations and ulcerations, causing extensive damage to underlying structures such as tendons and bones. Two theories have been proposed to explain the mechanism of action of anthracycline-induced tissue damage; one holds that doxorubicin-***DNA*** complexes form causing cell death, and the other holds that these agents are reduced to free radicals that can cause cell-membrane damage. Nonpharmacologic treatment of extravasation consists of stopping the infusion at the first sign of a problem and attempting to aspirate fluid and drug back through the same needle. The application of ice packs for the next 24-72 hours is recommended. A variety of pharmacologic approaches have been evaluated to ameliorate tissue damage. Corticosteroids, sodium bicarbonate, .beta.-adrenergic agents, and dimethyl sulfoxide have been used with some success. Patients who do not respond to initial conservative treatments should be referred to a plastic surgeon for skin grafting and reconstruction. The best treatment for anthracycline toxicity is prevention.

L14 ANSWER 28 OF 46 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 84210781 EMBASE
DOCUMENT NUMBER: 1984210781
TITLE: Cervical spine subluxation. Another (previously unreported) complication of systemic cortisone usage in patients with rheumatoid arthritis. Report of fourteen patients.
AUTHOR: Rask M.R.; Enrick N.L.
CORPORATE SOURCE: Sahara Rancho Medical Center, Las Vegas, NV 89102-4592, United States
SOURCE: Journal of Neurological and Orthopaedic Surgery, (1984) 5/3 (267-276).
CODEN: JNOSEE
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
038 Adverse Reactions Titles
008 Neurology and Neurosurgery
033 Orthopedic Surgery
031 Arthritis and Rheumatism
030 Pharmacology
LANGUAGE: English
AB Cervical spine subluxation occurred in 14 of 280 patients with mutilating (or resistant) rheumatoid arthritis (RA). All of these patients had taken oral (systemic) cortisone for many years prior to the development of this serious complication. It is believed that these vertebral subluxations resulted as a direct complication of the use of systemic steroid. None of 274 non-cortisone-medicated RA patients in this series developed cervical spine subluxation. Sixty of these patients proved to have mutilating RA disease, yet somehow escaped being treated with systemic steroids. Only 2 of the 14 patients with cervical spine subluxation were men. Cervical spine radiographs should be obtained in all patients with mutilating RA, especially if they have been treated with long-term systemic Cortisone to be sure they have not developed atlanto-axial (or other vertebral level) subluxation. Juvenile rheumatoid arthritis (JRA) may also have mutilating RA disease, but their joint damage is more likely to progress to ankylosis (rather than unstable destruction). This is most probably due to the presence of growth hormone. Systemic cortisone has too many serious side-effects to be considered 'safe therapy' in patients who suffer rheumatoid disease. An alternate, more safe method of RA therapy is presented. It is therefore highly recommended that the use of systemic cortisone in patients who suffer mutilating rheumatoid disease be discontinued. The only exception to this is the rheumatoid patient who has developed Addison's disease. Rheumatoid arthritis is apparently caused by the RA1 ***virus*** (in the susceptible individual). A vaccine for the prevention of rheumatoid disease is being prepared.

L14 ANSWER 29 OF 46 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 84021728 EMBASE
DOCUMENT NUMBER: 1984021728
TITLE: ['In vitro' inhibition of ***DNA*** replication of MCF7 human mammary carcinoma cells by local anesthetics].
INIBIZIONE 'IN VITRO' DELLA DUPLICAZIONE DEL ***DNA*** DA PARTE DI ANESTETICI LOCALI. EFFETTI SU CELLULE NEOPLASTICHE UMANE MCF7.
AUTHOR: Vietti Ramus G.; Cesano L.; Barbalonga A.
CORPORATE SOURCE: Universita di Torino, Istituto di Medicina Interna, Cattedra di Clinica Medica e Terapia Medica B, Torino, Italy
SOURCE: Minerva Medica, (1983) 74/39 (2269-2276).
CODEN: MIMEAO
COUNTRY: Italy
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
016 Cancer
029 Clinical Biochemistry
024 Anesthesiology
023 Nuclear Medicine
LANGUAGE: Italian
SUMMARY LANGUAGE: English
AB The action of two local anesthetics (Lidocaine and ***Bupivacaine***) on cells of mammary carcinoma MCF7 was investigated. 3H-TdR incorporation decreases in relation to the dose, and viability by Trypan blue does not significantly change but at high doses of anesthetic. Intercell adhesion decreases only at high concentration. When lidocaine is removed after the fourth hour and ***bupivacaine*** after the second hour the antimitotic action is irreversible. The inhibiting action of drugs is related to the cell number and unrelated to the time of adding the drug. There was no change of Lidocaine and ***bupivacaine*** action on neoplastic cells at different concentration of Na+, K+ and Ca++ in the medium. Neoplastic cells are partially independent from Ca++ and we think the antimitotic effect of local anesthetics we observed can be due to: antagonist action to calmodulin; inhibition of aminoacylation of tRNA; inhibition of cholesterol synthesis; modification of membrane permeability which is however significant only for high concentration of the drug.

L14 ANSWER 30 OF 46 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 83185592 EMBASE
DOCUMENT NUMBER: 1983185592
TITLE: Pain relief in herpes zoster.
AUTHOR: Schreuder M.
CORPORATE SOURCE: Ladysmith Prov. Hosp., Ladysmith, Natal, South Africa
SOURCE: South African Medical Journal, (1983) 63/21 (820-821).

CODEN: SAMJAF
COUNTRY: South Africa
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
008 Neurology and Neurosurgery
047 Virology
030 Pharmacology
013 Dermatology and Venereology
020 Gerontology and Geriatrics
LANGUAGE: English
AB The severity of pain as a symptom of herpes zoster and post-herpetic neuralgia has seldom been emphasized in the literature. In his report on a series of 113 patients, a treatment which gives immediate relief of pain and prevents post-herpetic neuralgia is described. Provided that the steroid solution could be placed accurately in the epidural space adjacent to the affected nerves, the method was 100% successful. Failure to provide
relief of pain after the initial effect of the local anaesthetic had worn off was taken as an indication that the epidural injection had been misplaced, and it was repeated.

L14 ANSWER 31 OF 46 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 83107852 EMBASE
DOCUMENT NUMBER: 1983107852
TITLE: Clinical applications of jet injection.
AUTHOR: McKenzie R.
CORPORATE SOURCE: Dep. Pharmacol. Clin. Pharmacol., Univ. Auckland Sch. Med.,
Auckland, New Zealand
SOURCE: New Zealand Medical Journal, (1982) 95/720 (815-817).
CODEN: NZMJAX
COUNTRY: New Zealand
DOCUMENT TYPE: Journal
FILE SEGMENT: 017 Public Health, Social Medicine and Epidemiology
037 Drug Literature Index
024 Anesthesiology
010 Obstetrics and Gynecology
LANGUAGE: English
AB The safety and limitations of jet injection have been reviewed. There is a great future potential for this method which provides important reduction in the dose of local anaesthetic required to produce various nerve blocks without the chance of significant intravascular injection. More clinical studies are needed. Education of the operator is necessary to avoid the frustration of a non-functional jet. Operator's errors reduce rapidly when familiarity with a new instrument becomes a fact. Perhaps one of the most important factors, since the introduction of the jet to clinical practice, is the ready acceptance by patients who are delighted that they do not have to suffer the fire of a needle injection.

L14 ANSWER 32 OF 46 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 83080339 EMBASE
DOCUMENT NUMBER: 1983080339
TITLE: The treatment of herpes zoster.
AUTHOR: Kolflaath J.; Holmboe J.
CORPORATE SOURCE: Anestesiavd., Gjovik Fylkessykehus, 2800 Gjovik, Norway
SOURCE: Tidsskrift for den Norske Laegeforening, (1983) 103/2 (147-148+140).
CODEN: TNLAAH
COUNTRY: Norway
DOCUMENT TYPE: Journal
FILE SEGMENT: 047 Virology
037 Drug Literature Index
013 Dermatology and Venereology
008 Neurology and Neurosurgery
LANGUAGE: Norwegian
SUMMARY LANGUAGE: English

L14 ANSWER 33 OF 46 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 83004517 EMBASE
DOCUMENT NUMBER: 1983004517
TITLE: Herpes zoster and postherpetic neuralgia.
AUTHOR: Stein J.M.; Warfield C.A.
CORPORATE SOURCE: Dep. Anaesth., Harvard Med. Sch., Boston, MA, United States
SOURCE: Hospital Practice, (1982) 17/9 (96A-96O).
CODEN: HOPRBW
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 047 Virology
037 Drug Literature Index
013 Dermatology and Venereology
008 Neurology and Neurosurgery
031 Arthritis and Rheumatism
LANGUAGE: English
AB Despite the recent surge of popular interest in herpesviruses and the demonstration of the clinical efficacy of several specific antiviral agents for herpes simplex infections, the magnitude and severity of morbidity caused by another herpesvirus, varicella-zoster, remains underappreciated. Acute herpes zoster and its devastating complication, postherpetic neuralgia, can be so agonizing, disabling, and depressing that they can dominate the life of the suffering - - and even provoke suicide.

L14 ANSWER 34 OF 46 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 80146861 EMBASE
DOCUMENT NUMBER: 1980146861
TITLE: Epidural block in obstetrics followed by aseptic meningoencephalitis.
AUTHOR: Neumark J.; Feichtinger W.; Gassner A.
CORPORATE SOURCE: Klin. Anaesth. Allg. Intens. Med., Allg. Krankenh. Stadt
Wien, Univ. Wien, A-1090 Wien, Austria
SOURCE: Anesthesiology, (1980) 52/6 (518-519).
CODEN: ANESAV
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
024 Anesthesiology
010 Obstetrics and Gynecology
008 Neurology and Neurosurgery
047 Virology
LANGUAGE: English
AB Many reported cases of aseptic meningitis after epidural and spinal block
were deduced to be due to chemical or mechanical irritation. In these cases symptoms appeared within 24 hours after the block. The authors are not aware of a case report in which a ***viral*** infection was shown to be the cause of aseptic meningitis. The incubation period of Coxsackie B ***virus*** infection is two to nine days. Thus, the infection of this patient must have occurred while she was in the hospital, including the day of delivery. After the onset of symptoms of meningoencephalitis, the attending physicians, including obstetricians, internists, and neurologists, believed the epidural block to be the reason for the problem. Later this theory was abandoned due to the direct serologic evidence of Coxsackie B antigens.

L14 ANSWER 35 OF 46 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 80111045 EMBASE
DOCUMENT NUMBER: 1980111045
TITLE: The response to epidural steroid injections in chronic dorsal root pain.
AUTHOR: Forrest J.B.
CORPORATE SOURCE: Dept. Anaesth., McMaster Univ. Med. Cent., Hamilton,
Ontario L8S 4J9, Canada
SOURCE: Canadian Anaesthetists Society Journal, (1980) 27/1 (40-46).
CODEN: CANJAE
COUNTRY: Canada
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
024 Anesthesiology
008 Neurology and Neurosurgery
LANGUAGE: English
SUMMARY LANGUAGE: French
AB Thirty-seven patients with long-standing post-herpetic neuralgia and 27 with post-traumatic neuralgia (PTN) were treated with three epidural injections each of methylprednisolone acetate (Depo Medrol) given at weekly intervals. Differential subarachnoid or epidural block was done in

all patients and placebo responders were excluded from the study. Mean age, duration of symptoms, and pain intensity measured by visual analogue scale were similar in both groups. Visual analogue scale ratings were reduced one month after treatments from pretreatment values of 84.4 and 78.7 to 9.6 and 15.2 in the post-herpetic and post-traumatic groups respectively, and were further reduced to 4.6 and 11.6 respectively after one year when 89 per cent of patients in the post-herpetic group and 59 per cent of patients in the posttraumatic group were completely pain free. Side effects were minor in all cases. It is suggested that this is the treatment of choice in post-herpetic and post-traumatic neuralgia where steroid administration is not contraindicated.

L14 ANSWER 36 OF 46 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 80052723 EMBASE
DOCUMENT NUMBER: 1980052723
TITLE: Marcaine, a selective inhibitor of eucaryotic aminoacylation.
AUTHOR: Jones G.H.
CORPORATE SOURCE: Dept. Cell. Molec. Biol., Div. Biol. Sci., Univ. Michigan, Ann Arbor, Mich. 48109, United States
SOURCE: Biochemistry, (1979) 18/21 (4542-4547). CODEN: BICHAW
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
030 Pharmacology
LANGUAGE: English
AB The effects of marcaine, a myotoxic drug, on the aminoacylation of transfer ribonucleic acid (tRNA) have been studied. The drug is a potent inhibitor of the acylation of rat liver tRNA with leucine and isoleucine but it is only mildly inhibitory (or not inhibitory) to acylation with a number of other amino acids which were tested. Further, marcaine inhibited aminoacylation in cell-free systems using components from several mammalian tissues, including muscle, from yeast, and from wheat germ. No effect of the drug was observed in aminoacylation systems from several bacterial species which were tested. The drug inhibits acylation with leucine and isoleucine competitively but exhibited noncompetitive kinetics when the concentrations of adenosine 5'-triphosphate (ATP) and tRNA were varied. Marcaine was also a competitor of leucine in the ATP-pyrophosphate exchange reaction. Two structural analogues of marcaine, carbocaine and xylocaine, also inhibited acylation of rat liver tRNA with leucine but in a noncompetitive fashion. On a molar basis, marcaine appears to be the most effective inhibitor of the three drugs tested.

L14 ANSWER 37 OF 46 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 78269059 EMBASE
DOCUMENT NUMBER: 1978269059
TITLE: The pentose phosphate pathway in regenerating skeletal muscle.
AUTHOR: Wagner K.R.; Kauffman F.C.; Max S.R.
CORPORATE SOURCE: Dept. Neurol., Univ. Maryland Sch. Med., Baltimore, Md. 21201, United States
SOURCE: Biochemical Journal, (1978) 170/1 (17-22). CODEN: BIJOAK
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal
FILE SEGMENT: 029 Clinical Biochemistry
005 General Pathology and Pathological Anatomy
LANGUAGE: English
AB The activities of the oxidative enzymes (glucose 6-phosphate dehydrogenase and 6-phosphogluconate dehydrogenase) and of the non-oxidative enzymes (transaldolase, transketolase, ribose 5-phosphate isomerase and ribulose 5-phosphate 3-epimerase) of the pentose phosphate pathway wer measured at various times during the first 24 h of skeletal-muscle regeneration after administration of Marcaine, a myotoxic local anesthetic (bapivacaine). The activities of the oxidative enzymes increased after ***bupivacaine*** injection and rose to 9 times control activities by 24h. The activities of all non-oxidative enzymes were increased after marcaine administration, but to a much smaller extent tha the oxidative enzymes (1.1-1.7-fold). Histochemical analysis localized glucose 6-phosphate dehydrogenase activity within muscle fibres of control and Marcaine-treated muscles. Cyclo-heximide or actinomycin D prevented the increase in oxidative enzyme activities, suggesting a requirement for synthesis or protein and ***RNA*** .

L14 ANSWER 38 OF 46 MEDLINE
ACCESSION NUMBER: 92078303 MEDLINE
DOCUMENT NUMBER: 92078303 PubMed ID: 1744177
TITLE: Desmin is present in proliferating rat muscle satellite cells but not in bovine muscle satellite cells.
AUTHOR: Allen R E; Rankin L L; Greene E A; Boxhorn L K; Johnson S E; Taylor R G; Pierce P R
CORPORATE SOURCE: Department of Animal Sciences, University of Arizona, Tucson 85721.
CONTRACT NUMBER: AG 03393 (NIA)
SOURCE: JOURNAL OF CELLULAR PHYSIOLOGY, ***(1991 Dec)*** 149 (3) 525-35.
Journal code: HNB; 0050222. ISSN: 0021-9541.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199201
ENTRY DATE: Entered STN: 19920202
Last Updated on STN: 19970203
Entered Medline: 19920115
AB The presence of desmin was characterized in cultured rat and bovine satellite cells and its potential usefulness as a marker for identifying satellite cells in vitro was evaluated. In primary cultures, positive immunohistochemical staining for desmin and skeletal muscle myosin was observed in rat and bovine myotubes. A small number of mononucleated cells (20% of rat satellite cells and 5% of bovine satellite cells) were myosin-positive, indicative of post-mitotic differentiated myocytes. In bovine satellite cell cultures 13% of the mononucleated cells were desmin-positive, while 84% of the mononucleated cells in rat satellite cell cultures were desmin-positive. Rat satellite cell mass cultures and bovine satellite cell clonal density cultures were pulsed with 3H-thymidine, and autoradiographic data revealed that greater than 94% of dividing rat cells were desmin-positive, suggesting that desmin is synthesized in proliferating rat satellite cells. However, no desmin was seen in cells that incorporated labeled thymidine in bovine satellite cell clones. Analysis of clonal density cultures revealed that only 14% of the mononucleated cells in bovine satellite cell colonies were desmin-positive, whereas 98% of the cells in rat satellite cell colonies were desmin-positive. Fibroblast colonies from both species were desmin-negative. In order to further examine the relationship between satellite cell differentiation and desmin expression, 5-bromo-2'-deoxyuridine (BrdU) was added to culture medium at the time of plating to inhibit differentiation. Fusion was inhibited in rat and bovine cultures, and cells continued to divide. Very few desmin-positive cells were found in bovine cultures, but greater than 90% of the cells in rat cultures stained positive for desmin. The presence of desmin and sarcomeric myosin was also evaluated in regenerating rat tibialis anterior five days after ***bupivacaine*** injection. In regenerating areas of the muscle many desmin-positive cells were present, and only a few cells stained positive for skeletal muscle myosin. Application of desmin staining to rat satellite cell growth assays indicated that rat satellite cells cultured in serum-containing medium were contaminated with fibroblasts at levels that ranged from approximately 5% in 24 hr cultures to 15% in mature cultures. In defined medium 4 day cultures contain approximately 95% to 98% desmin-positive satellite cells.(ABSTRACT TRUNCATED AT 400 WORDS)

L14 ANSWER 39 OF 46 MEDLINE
ACCESSION NUMBER: 90244975 MEDLINE
DOCUMENT NUMBER: 90244975 PubMed ID: 2186265
TITLE: Treatment of acute herpetic neuralgia. A case report and review of the literature.

COMMENT: Comment in: Minn Med. 1990 Dec;73(12):11-2
Comment in: Minn Med. 1990 Nov;73(11):7-8
AUTHOR: Hess T M; Lutz L J; Nauss L A; Lamer T J
CORPORATE SOURCE: Department of Anesthesiology, Mayo Clinic, Rochester,
Minnesota.
SOURCE: MINNESOTA MEDICINE, ***(1990 Apr)*** 73 (4) 37-40.
Ref: 28
Journal code: NBY; 8000173. ISSN: 0026-556X.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199006
ENTRY DATE: Entered STN: 19900706
Last Updated on STN: 19900706
Entered Medline: 19900614
AB Herpes zoster (shingles) is a ***viral*** infection that results from a reactivation of a dormant varicella zoster ***virus*** . It has been estimated that more than 300,000 new cases are seen in the United States each year. Several factors influence the incidence of infection, with increasing age being the most consistent. Postherpetic neuralgia is the No. 1 cause of intractable, debilitating pain in the elderly and is the leading cause of suicide in chronic pain patients over the age of 70.

L14 ANSWER 40 OF 46 MEDLINE
ACCESSION NUMBER: 82245443 MEDLINE
DOCUMENT NUMBER: 82245443 PubMed ID: 7099195
TITLE: Protein synthesis in ***bupivacaine*** (marcaine)-treated, regenerating skeletal muscle.
AUTHOR: Jones G H
SOURCE: MUSCLE AND NERVE, ***(1982 Apr)*** 5 (4) 281-90.
Journal code: NN9; 7803146. ISSN: 0148-639X.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198209
ENTRY DATE: Entered STN: 19900317
Last Updated on STN: 19900317
Entered Medline: 19820910
AB Skeletal muscle regeneration has been induced by injection of the myotoxic
drug ***bupivacaine*** (Marcaine) into the rat tibialis anterior muscle. Doses of 1.5 and 1.0% wt/vol produce significant levels of muscle regeneration, but these doses also produce large regions of ischemic muscle. Doses of 0.75 and 0.5% ***bupivacaine*** are also effective in
inducing regeneration and produce little or no ischemia. Regenerating muscle is significantly more active in the incorporation of 35S-methionine into protein than is control muscle, and the activity increase is directly proportional to the ***bupivacaine*** dose injected. Polyribosomes were isolated in greater yield from ***bupivacaine*** -treated muscles, as compared with control muscles, 5 days postinjection, and were also more
active in cell-free protein synthesis than control polysomes. Again, the yield and activity of the muscle polysomes was directly proportional to the ***bupivacaine*** concentration used for injection. Polyacrylamide gel electrophoresis of polysomal cell-free reaction mixtures demonstrated the synthesis of a number of myofibrillar proteins.

L14 ANSWER 41 OF 46 MEDLINE
ACCESSION NUMBER: 81131531 MEDLINE
DOCUMENT NUMBER: 81131531 PubMed ID: 7008645
TITLE: [***Bupivacaine*** and the humoral component of the immunlogical secondary response (author's transl)]. Bupivacain und die humorale Komponente der immunologischen Sekundarantwort.
AUTHOR: Baur K F; Walzebuck P; Dast H
SOURCE: ANAESTHESIST, ***(1981 Jan)*** 30 (1) 19-20.
Journal code: 4MY; 0370525. ISSN: 0003-2417.
PUB. COUNTRY: GERMANY, WEST: Germany, Federal Republic of
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: German
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198104
ENTRY DATE: Entered STN: 19900316
Last Updated on STN: 19900316
Entered Medline: 19810421
AB Using the Jerne-Plaque-Technique, as modified by Cunningham, the influence
of the local anaesthetic ***bupivacaine*** (over-all dose 200 mg/kg weight) on the immunological secondary response of the mice was tested. Plasma cells producing IgM as well as those producing IgG could not be shown to be significantly susceptible to suppression by ***bupivacaine*** .

L14 ANSWER 42 OF 46 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 1992-033042 [05] WPIDS
CROSS REFERENCE: 1992-299730 [36]; 1995-263209 [34]; 1996-286351 [29]
DOC. NO. CPI: C1992-014397
TITLE: Anti-wart compsn. - comprises keratolytic agent, local anaesthetic and carrier, for use e.g. against human papilloma ***virus*** .
DERWENT CLASS: A96 B05
INVENTOR(S): POPP, K F
PATENT ASSIGNEE(S): (STIE) STIEFEL LAB INC
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
CA 2039643	A	19911108 (199205)*			<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
CA 2039643	A	CA 1991-2039643	19910403

PRIORITY APPLN. INFO: US 1990-520374 19900507
AN 1992-033042 [05] WPIDS
CR 1992-299730 [36]; 1995-263209 [34]; 1996-286351 [29]
AB CA 2039643 A UPAB: 19960731
Compsn. for use in the treatment of warts comprises: a topical keratolytic agent in amt. therapeutically effective against warts caused by human papilloma ***virus*** or against molluscum contagiosum, a local anaesthetic, and a topically acceptable carrier.
Pref. the keratolytic agent is salicyclic acid, lactic acid or chloroactic acid. The local anaesthetic is benzocaine, procaine, tetracaine, chloroprocaine, ***bupivacaine*** , dibucaine, lidocaine, mepivacaine, prilocaine or etidocaine. The carrier is a film forming fluid such as a flexible collodion or a liquid acrylic.
ADVANTAGE - The incorporation of a local anaesthetic in the compsn.
alleviates the localised discomfort and irritation often associated with the application of keratolytics to the skin. @(8pp Dwg.No.0/0)@
0/0

L14 ANSWER 43 OF 46 WPIDS (C) 2002 THOMSON DERWENT
ACCESSION NUMBER: 1991-267140 [36] WPIDS
DOC. NO. CPI: C1991-115848
TITLE: Satellite cell proliferation in adult skeletal muscle - for treating e.g. muscular dystrophy, diabetes and albinism.
DERWENT CLASS: B04 D16
INVENTOR(S): BOOTH, F W; MORRISON, P R; STANCEL, G M; THOMASON, D B
PATENT ASSIGNEE(S): (UYTE-N) UNIV TEXAS AT AUSTIN; (TEXA) UNIV TEXAS SYSTEM
COUNTRY COUNT: 32
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9112329	A	19910822 (199136)*			<--
RW: AT BE CH DE DK ES FR GB GR IT LU NL OA SE					
W: AT AU BB BG CA CH DE DK ES FI GB GR HU JP KP KR LK LU MC MG MW NL					
NO RO SD SE SU					

AU 9173128 A 19910903 (199148) <--
WO 9112329 A3 19910919 (199508) <--
US 5466676 A 19951114 (199551) 15

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9112329	A3	WO 1991-US941	19910212
US 5466676	A Cont of	US 1990-479065	19900212
		US 1992-823783	19920123

PRIORITY APPLN. INFO: US 1990-479065 19900212; US 1992-823783 19920123
AN 1991-267140 [36] WPIDS
AB WO 9112329 A UPAB: 19930928
Method for the in vivo inclusion of a foreign gene into an adult eukaryotic tissue is claimed, by infecting a mitotically-active cell in the tissue with a ***retroviral*** vector. The method involves inducing a mitotically-active state in the eukaryotic tissue and including a ***retroviral*** vector contg. the gene into the tissue's mitotically active cells. The ***retroviral*** vector is replication-defective and is a prokaryotic e.g. beta-galactosidase, or an eukaryotic foreign gene e.g. an insulin, dystrophic, spectrin or a murine leukaemia ***virus*** (MLV) gene e.g. AKR, Maloney or Friend MLV. The
eukaryotic tissue may be skeletal- cardiac- or smooth-muscle, brain, gastrointestinal, testicular, blood, skin or uterine tissue. The mitotically-active state is obtd. by inducing cellular-repair mechanisms in the cell by discomposing the eukaryotic cell, exposing the cell to radiation or administering collagenase, fibroblast growth factor, ***bupivacaine*** , oestrogen and dexamethsone.
USE/ADVANTAGE - Used in gene therapy to replace a defective gene in
eukaryotes, by inclusion of a gene complementary to the defective one. Conditions treated are e.g. muscular dystrophy, e.g. Duchennes or Becker muscular dystrophy, diabetes or albinism. @(50pp Dwg.No.0/10)
ABEQ US 5466676 A UPAB: 19951221
Method for enhancing the incorporation of a foreign gene into a tissue and expressing the gene comprises (a) providing a mitotically-active state in a tissue in vivo to provide the tissue with enhanced receptivity to incorporation of a foreign gene, (b) preparing a ***retroviral*** vector capable of infecting a eukaryotic stem cell, where the vector comprises a foreign gene and (c) injecting the tissue in vivo with the ***retroviral*** vector.
Foreign gene may be prokaryotic or eukaryotic e.g. beta-galactosidase.
USE - In the gene therapy of possible immune rejection and genetic diseases e.g. Duchenne's and Becker's muscular dystrophies. Allows for gene incorporation into the smooth muscle, gastrointestinal tract, brain, cardiac, muscle, uterine, blood, skin or testicular tissue etc.
Dwg.0/2

L14 ANSWER 44 OF 46 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:207280 HCAPLUS
DOCUMENT NUMBER: 128:275101
TITLE: Gas and gaseous precursor filled microspheres as topical and subcutaneous delivery vehicles
INVENTOR(S): Unger, Evan C.; Matsunaga, Terry O.; Yellowhair, David
PATENT ASSIGNEE(S): Imarx Pharmaceutical Corp., USA
SOURCE: U.S., 40 pp. Cont.-in-part of U.S. Ser. No. 307,305.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 19
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5733572	A	19980331	US 1994-346426	19941129
US 5088499	A	19920218	US 1990-569828	19900820 <--
WO 9109629	A1	19910711	WO 1990-US7500	19901219 <--
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
JP 05502675	T2	19930513	JP 1991-503276	19901219
AT 180170	E	19990615	AT 1991-902857	19901219
ES 2131051	T3	19990716	ES 1991-902857	19901219
US 5228446	A	19930720	US 1991-717084	19910618
WO 9222247	A1	19921223	WO 1992-US2615	19920331 <--
W: AU, CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
AU 9220020	A1	19930112	AU 1992-20020	19920331
AU 667471	B2	19960328		
JP 06508364	T2	19940922	JP 1992-500847	19920331
EP 616508	A1	19940928	EP 1992-912456	19920331
EP 616508	B1	20010718		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE				
AT 203148	E	20010815	AT 1992-912456	19920331
ES 2159280	T3	20011001	ES 1992-912456	19920331
US 5469854	A	19951128	US 1993-76239	19930611
US 5580575	A	19961203	US 1993-76250	19930611
US 5348016	A	19940920	US 1993-88268	19930707
US 5542935	A	19960806	US 1993-160232	19931130
US 5585112	A	19961217	US 1993-159687	19931130
US 5769080	A	19980623	US 1994-199462	19940222
WO 9428874	A1	19941222	WO 1994-US5633	19940519
W: AU, CA, CN, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5773024	A	19980630	US 1994-307305	19940916
CA 2177713	AA	19950608	CA 1994-2177713	19941130
JP 09506098	T2	19970617	JP 1994-515763	19941130
US 5571497	A	19961105	US 1995-468056	19950606
CN 1180310	A	19980429	CN 1996-193069	19960327
US 6001335	A	19991214	US 1996-665719	19960618
US 5935553	A	19990810	US 1996-758179	19961125
US 5985246	A	19991116	US 1997-888426	19970708
AU 713127	B2	19991125	AU 1998-56271	19980224
AU 9856271	A1	19980507		
AU 9888405	A1	19981203	AU 1998-88405	19981012
AU 731072	B2	20010322		
AU 9910043	A1	19990304	AU 1999-10043	19990104

PRIORITY APPLN. INFO.: US 1989-455707 B2 19891222
US 1990-569828 A2 19900820
US 1991-716899 B2 19910618
US 1991-717084 A2 19910618
US 1993-76239 A2 19930611
US 1993-76250 A2 19930611
US 1993-159674 B2 19931130
US 1993-159687 A2 19931130
US 1993-160232 A2 19931130
US 1994-307305 A2 19940916
WO 1990-US7500 W 19901219
US 1991-750877 A3 19910826
US 1992-818069 A3 19920108
WO 1992-US2615 A 19920331
US 1992-967974 A3 19921027
US 1993-17683 A3 19930212
US 1993-18112 B3 19930217
US 1993-85608 A3 19930630
US 1993-88268 A3 19930707
US 1993-163039 A3 19931206
US 1994-212553 B2 19940311
AU 1994-70416 A3 19940519
US 1994-346426 19941129
AU 1995-21850 A3 19941130
WO 1994-US13817 W 19941130
US 1995-395683 A3 19950228
US 1995-468056 A3 19950606
US 1995-471250 A3 19950606
US 1996-665719 A3 19960618

AB Gas and gaseous precursor filled microspheres, and foams provide novel topical and s.c. delivery vehicles for various active ingredients, including drugs and cosmetics. Gas and gaseous precursor filled microcapsules were prepd. from dipalmitoylphosphatidylcholine.

L14 ANSWER 45 OF 46 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:614831 HCAPLUS
DOCUMENT NUMBER: 115:214831
TITLE: Lipospheres for controlled delivery of pharmaceuticals, pesticides, and fertilizers
INVENTOR(S): Domb, Abraham J.; Maniar, Manoj
PATENT ASSIGNEE(S): Nova Pharmaceutical Corp., USA
SOURCE: PCT Int. Appl., 79 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9107171	A1	19910530	WO 1990-US6519	19901108 <--
W: AU, CA, FI, JP, KR, NO				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
CA 2068216	AA	19910514	CA 1990-2068216	19901108 <--
CA 2068216	C	19990413		
AU 9169500	A1	19910613	AU 1991-69500	19901108 <--
AU 655162	B2	19941208		
EP 502119	A1	19920909	EP 1991-901106	19901108 <--
EP 502119	B1	19960131		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
AT 133562	E	19960215	AT 1991-901106	19901108
ES 2085465	T3	19960601	ES 1991-901106	19901108
ZA 9009088	A	19910731	ZA 1990-9088	19901113 <--
US 5188837	A	19930223	US 1991-770706	19911003
JP 05505338	T2	19930812	JP 1991-501460	19911219
JP 3233402	B2	20011126		
US 5227165	A	19930713	US 1992-826218	19920122
US 5221535	A	19930622	US 1992-826215	19920123
US 5340588	A	19940823	US 1992-825287	19920123

PRIORITY APPLN. INFO.: US 1989-435546 A 19891113
US 1990-607542 B1 19901108
US 1990-607543 B1 19901108
WO 1990-US6519 A 19901108

AB Solid, water-insol. lipospheres are prepd. which contain drugs such as vaccines and anesthetics, also other biol. active agents such as insecticides and repellents, fertilizers, and pesticides. The controlled-release lipospheres have several advantages. They include emulsions, vesicles, which are stable for an extended period. A mixt. of lidocaine, tristearin and lecithin with a buffer soln. was shaken vigorously, immediately cooled, and immersed in a dry ice-acetone bath to give lipospheres contg. lidocaine. The wide uses of the lipospheres are shown.

L14 ANSWER 46 OF 46 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1990:240491 HCAPLUS
DOCUMENT NUMBER: 112:240491
TITLE: Topical pharmaceuticals containing silver sulfadiazine
INVENTOR(S): Minninger, Konrad; Tang, David; Oberhagemann, Rainer
PATENT ASSIGNEE(S): Fed. Rep. Ger.
SOURCE: Eur. Pat. Appl., 6 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 326145	A1	19890802	EP 1989-101409	19890127 <--
R: ES, GR				
DE 3828044	A1	19890810	DE 1988-3828044	19880818 <--
WO 8906962	A1	19890810	WO 1989-EP72	19890127 <--
W: AU, BR, DK, FI, HU, JP, KP, KR, NO, RO, SU, US				
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
AU 8929364	A1	19890825	AU 1989-29364	19890127 <--
ZA 8905124	A	19900425	ZA 1989-5124	19890705 <--
EP 355009	A1	19900221	EP 1989-114623	19890808 <--
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
WO 9001934	A1	19900308	WO 1989-EP934	19890808 <--
W: AU, BR, DK, FI, HU, JP, KP, KR, NO, RO, SU, US				
AU 8940454	A1	19900323	AU 1989-40454	19890808 <--
DK 9000940	A	19900613	DK 1990-940	19900417 <--

PRIORITY APPLN. INFO.: DE 1988-3802654 19880129
DE 1988-3828044 19880818
WO 1989-EP72 19890127
WO 1989-EP934 19890808

AB A compn. for the topical treatment of herpes infections, varicella, eczema, and burns (2nd and 3rd degree) comprises 0.01-10% Ag sulfadiazine, 0.01-10% polyhydric alcs., and optionally a local anesthetic. A gel comprised Ag sulfadiazine 2, glycerol 2, ***bupivacaine*** -HCl 2, and gel base 94% by wt.

09/359975
A###6

Set Items Description
--- ----- -----
? s dna or plasmid or polynucleotide or (nucleic(w)acid)

Processing
1526897 DNA
183701 PLASMID
10632 POLYNUCLEOTIDE
249933 NUCLEIC
2911190 ACID
225928 NUCLEIC(W)ACID
S1 1673077 DNA OR PLASMID OR POLYNUCLEOTIDE OR (NUCLEIC(W)ACID)
? s enhancer

S2 41973 ENHANCER
? s uptake or penetrat? or transfect? or vaccin?

431984 UPTAKE
131465 PENETRAT?
162359 TRANSFECT?
277624 VACCIN?
S3 987869 UPTAKE OR PENETRAT? OR TRANSFECT? OR VACCIN?
? s s1(5w)s3

1673077 S1
987869 S3
S4 28774 S1(5W)S3
? s s4(5w)s2

28774 S4
41973 S2
S5 81 S4(5W)S2
? s s1(10w)s3

1673077 S1
987869 S3
S6 38968 S1(10W)S3
? s s6(10w)s2

38968 S6
41973 S2
S7 131 S6(10W)S2
? rd

...examined 50 records (50)
...examined 50 records (100)
...completed examining records
S8 101 RD (unique items)
? s s8 and py<=1993

Processing
101 S8
22710852 PY<=1993
S9 43 S8 AND PY<=1993
? t s9/3,ab/1-43

9/3,AB/1 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
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08911566 BIOSIS NO.: 199396063067
Direct DNA injection into mouse tongue muscle for analysis of promoter function in vivo.
AUTHOR: Prigozy T(a); Dalrymple K; Kedes L(a); Shuler C
AUTHOR ADDRESS: (a)Inst. Genet. Med., Dep. Biochemistry, Univ. Southern California Sch. Med., 2011 Zonal Ave., Los **USA
JOURNAL: Somatic Cell and Molecular Genetics 19 (2):p111-122 1993
ISSN: 0740-7750
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The striated muscle of the tongue provides a readily accessible site for the introduction of DNA expression vectors. Parameters were established to use the striated muscle of the tongue as a model system for the examination of gene expression following the direct injection of DNA constructs bearing gene promoter sequences controlling the expression of reporter genes. Plasmid expression vectors were used that contained either constitutive or muscle-specific promoters directing the transcription of reporter genes. Chloramphenicol acetyltransferase (CAT), luciferase, and beta-galactosidase (lacZ) were used as the reporter genes to detect the promoter-specific expression of the injected DNA. The expression of the injected plasmids was directly correlated with the mass of injected DNA and the time of incubation following the injection. Maximal levels of reporter gene expression were observed seven days after the injection, and the expression was maintained for more than two months following injection. Simultaneous injection of two individual expression vectors bearing either CAT or luciferase reporter genes resulted in a dose-dependent level of expression for each of the plasmids. The linearity of the coexpression provided a means to normalize %%%DNA%%% %%%uptake%%% and analyze promoter efficiency. The troponin C-fast %%%enhancer%%% linked to its own promoter directed significantly more CAT expression than an enhancerless SV40 promoter-CAT plasmid, demonstrating that different promoter strengths could be determined in the mouse tongue muscle in vivo. This model system represents a convenient means to approach the functional analysis of muscle gene promoters in vivo.

9/3,AB/2 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
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08726785 BIOSIS NO.: 199395016136
A DNA element that regulates expression of a endogenous retrovirus during F9 cell differentiation is E1A dependent.
AUTHOR: Lamb Bruce T; Satyamoorthy Kapaettu; Solter Davor; Basu Amitabha; Xu Mei Q; Weinmann Roberto; Howe Chin C(a)
AUTHOR ADDRESS: (a)Wistar Inst. Anatomy Biol., 3601 Spruce St., Philadelphia, Pa. 19104
JOURNAL: Molecular and Cellular Biology 12 (11):p4824-4833 1992
ISSN: 0270-7306
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The retinoic acid-induced differentiation of F9 cells into parietal endoderm-like cells activates transcriptional of the endogenous mouse retrovirus, the intracisternal A-particles (IAP). To investigate the elements that control IAP gene differentiation-specific expression, we used methylation interference, Southwestern (%%%DNA%%%-protein), and transient-%%%transfection%%% assays and identified the IAP-proximal %%%enhancer%%% (IPE) element that directs differentiation-specific expression. We find that the IPE is inactive in undifferentiated F9 cells and active in differentiated parietal endoderm-like PYS-2 cells. Three proteins of 40, 60, and 68 kDa binds to the sequence GAGTGAC located between nucleotides -53 and -47 within the IPE. The 40- and 68-kDa proteins from both the undifferentiated and differentiated cells exhibit similar DNA-binding activities. However, the 60-kDa protein from differentiated cells has greater binding activity than that from undifferentiated cells, suggesting a role for this protein in F9 differentiation-specific expression of the IAP gene. The IAP gene is negatively regulated by the adenovirus E1A proteins, and the E1A sequences responsible for repression is located at the N terminus, between amino acids 2 and 67. The DNA sequence that is the target of E1A repression also maps to the IPE element. Colocalization of the differentiation-specific and E1A-sensitiive elements to the same protein-binding site within the IPE suggests that the E1A-like activity functions in F9 cells to repress IAP gene expression. Activation of the IAP gene may result when the E1A-like activity is lost or inactivated during F9 cells differentiation, followed by binding of the 60-kDa positive regulatory protein to the enhancer element.

9/3,AB/3 (Item 3 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2000 BIOSIS. All rts. reserv.

08068382 BIOSIS NO.: 000093089830
INHIBITORY EFFECT OF PROSTAGLANDIN DELTA-12 PGJ2 ON CELL PROLIFERATION AND
ALPHA FETOPROTEIN EXPRESSION IN HUH-7 HUMAN HEPATOMA CELLS
AUTHOR: MITSUOKA S; OTSURU A; NAKAO K; TSUTSUMI T; TSURUTA S; HAMASAKI K;
SHIMA M; NAKATA K; TAMAOKI T; NAGATAKI S
AUTHOR ADDRESS: FIRST DEP. INTERNAL MED., NAGASAKI UNIV. SCH. MED.,
NAGASAKI 852, JPN.
JOURNAL: PROSTAGLANDINS 43 (2). 1992. 189-198.
FULL JOURNAL NAME: Prostaglandins
CODEN: PRGLB
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: 9-deoxy-.DELTA.9,.DELTA.12-13,14-dihydro-prostaglandin D2
(.DELTA.12-PGJ2) is a potent inhibitor of proliferation of tumor cells. In the present study, the effect of .DELTA.12-PGJ2 on the .alpha.-fetoprotein (AFP) and the albumin gene expression was analyzed in HuH-7 human hepatoma cells. .DELTA.12-PGJ2 inhibited the cell growth and reduced the medium AFP concentrations dose-dependently. To determine whether this decline of AFP depends only on the relative decrease in cell numbers by .DELTA.12-PGJ2, or is in part, due to the decrease in the cellular AFP synthesis by .DELTA.12-PGJ2, Northern blot analysis was performed in this study. By Northern blotting, it was shown that .DELTA.12-PGJ2 caused a marked reduction in the levels of the AFP mRNA and the albumin mRNA. In contrast, the level of the .beta.-actin mRNA was not changed by .DELTA.12-PGJ2. In the transient chloramphenicol acetyltransferse %%%plasmid%%% %%%transfection%%% experiments, .DELTA.12-PGJ2 did not suppress the AFP %%%enhancer%%% activity, which possibly regulates both the AFP and the albumin gene expression in HuH-7 hepatoma cells, but resulted in the selective repression of the AFP and the albumin promoter activity. These results suggest that .DELTA.12-PGJ2 suppresses not only cell growth but also expression of the AFP gene and the albumin gene at the transcriptional level in human hepatoma cells.

9/3,AB/4 (Item 4 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

07589607 BIOSIS NO.: 000091118396
AN ENHANCER AT THE 3' END OF THE MOUSE IMMUNOGLOBULIN HEAVY CHAIN LOCUS
AUTHOR: LIEBERSON R; GIANNINI S L; BIRSHTEIN B K; ECKHARDT L A
AUTHOR ADDRESS: DEP. BIOL. SCI., COLUMBIA UNIV., NEW YORK, NY 10027.
JOURNAL: NUCLEIC ACIDS RES 19 (4). 1991. 933-938.
FULL JOURNAL NAME: Nucleic Acids Research
CODEN: NARHA
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: A tissue-specific enhancer (E.mu.) lies between the joining (JH) and .mu. constant region (C.mu.) gene segments of the immunoglobulin heavy chain (IgH) locus. Since mouse endogenous IgH genes are efficiently transcribed in its absence, the normal function of this enhancer remains ill-defined. Recently, another lymphoid-specific enhancer of equal strength has been identified 3' of the rat IgH locus. We have isolated an analgous sequence from mouse and have mapped it 12.5kb 3' of the 3'-most constant region gene (C.alpha.-membrane) of the BALB/c mouse locus. The mouse and rat sequences are 82% homologous and share with other enhancers several %%%DNA%%% sequence motifs capable of binding protein. However, in transient %%%transfection%%% assays, the mouse sequence behaves as a weaker %%%enhancer%%%. The role of this distant element in the expression of endogenous IgH genes, both in E.mu.-deficient, Ig-producing cell lines and during normal B cell development, is discussed.

9/3,AB/5 (Item 5 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

06289928 BIOSIS NO.: 000086124111
COMPARISON OF INTRON-DEPENDENT AND INTRON-INDEPENDENT GENE EXPRESSION
AUTHOR: BUCHMAN A R; BERG P
AUTHOR ADDRESS: DEP. BIOCHEM., STANFORD UNIV. SCH. MED., STANFORD, CALIF.
94305.
JOURNAL: MOL CELL BIOL 8 (10). 1988. 4395-4405.
FULL JOURNAL NAME: Molecular and Cellular Biology
CODEN: MCEBD
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: Recombinant simian virus 40 viruses carrying rabbit .beta.-globin cDNA failed to express the .beta.-globin sequence unless an intron was included in the transcription unit. The addition of either .beta.-globin IVSI or IVS2 caused a 400-fold increase in RNA production. Stable .beta.-globin RNA production required sequences in IVS2 that were very close to the splice sites and that coincided with those needed for mRNA splicing. In addition to the recombinant viruses, intron-dependent expression was observed with both replicating and nonreplicating %%%plasmid%%% vectors in short-term %%%transfections%%% of cultured animals cells. Unlike transcriptional %%%enhancer%%% elements, IVS2 failed to increase stable RNA production when it was placed downstream of the polyadenylation site. Using a plasmid vector system to survey different inserted sequences for their dependence on introns for expression, we found that the presence of IVS2 stimulated the expression of these sequences 2- to 500-fold. Sequences from the transcribed region of the herpes simplex virus thymidine kinase gene, a gene that lacks an intervening sequence, permitted substantial intron-independent expression (greater than 100-fold increase) in the plasmid vector system.

9/3,AB/6 (Item 6 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

06246241 BIOSIS NO.: 000086080423
THE HUMAN FGF-5 ONCOGENE ENCODES A NOVEL PROTEIN RELATED TO FIBROBLAST
GROWTH FACTORS
AUTHOR: ZHAN X; BATES B; HU X; GOLDFARB M
AUTHOR ADDRESS: DEP. BIOCHEM. AND MOLECULAR BIOPHYSICS, COLL. PHYSICIANS
AND SURGEONS, COLUMBIA UNIV., 630 W. 168TH ST., NEW YORK, N.Y. 10032.
JOURNAL: MOL CELL BIOL 8 (8). 1988. 3487-3495.
FULL JOURNAL NAME: Molecular and Cellular Biology
CODEN: MCEBD
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: We previously described the isolation of a human oncogene which had acquired transforming potential by a DNA rearrangement accompanying transfection of NIH 3T3 cells with human tumor DNA (X. Zhan, A. Culpepper, M. Reddy, J. Loveless, and M. Goldfarb, Oncogene 1:369-376, 1987). We now term this oncogene the FGF-5 gene, since it specifies the fifth documented protein related to fibroblast growth factors (FGFs). Two regions of the FGF-5 sequence, containing 122 of its 267 amino acid residues, were 40 to 50% homologous to the sequences of acidic and basic FGFs as well as to the sequences of the FGF-related oncoproteins int-2 and hst/KS3. The FGF-5 gene bears the three exon structures typical for members of this family. FGF-5 was found to be expressed in the neonatal brain and in 3 of the 13 human tumor cell lines examined. Several experiments strongly suggested that FGF-5 is a growth factor with properties common to those of acidic and basic FGFs. The rearrangement which activated the FGF-5 gene during %%%DNA%%% %%%transfection%%% had juxtaposed a retrovirus transcriptional %%%enhancer%%% just upstream from

the native promoter of the gene.

9/3,AB/7 (Item 7 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

06245595 BIOSIS NO.: 000086079777
UNIQUE REQUIREMENT FOR THE PYF441 MUTATION FOR POLYOMAVIRUS INFECTION OF F9
EMBRYONAL CARCINOMA CELLS
AUTHOR: TSENG R W; WILLIAMS T; FUJIMURA F K
AUTHOR ADDRESS: NICHOLS INST., 26441 VIA DE ANZA, SAN JUAN CAPISTRANO,
CALIF. 92675.
JOURNAL: J VIROL 62 (8). 1988. 2896-2902.
FULL JOURNAL NAME: Journal of Virology
CODEN: JOVIA
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: A point mutation at nucleotide 5258 in the enhancer of the polyomavirus host range mutant F441 permits productive infection of F9 embryonal carcinoma cells, which, when undifferentiated, are refractory to infection by wild-type polyomavirus. Synthetic oligonucleotides were used to construct viral genomes containing all four possible nucleotides pairs at nucleotide 5258. While all four of the viruses infected 3T6 cells efficiently, only F441, which has a guanosine in place of the wild-type adenosine in the early strand of %%%DNA%%% at position 5258,
was able to infect F9 cells. %%%Transfection%%% assays with %%%enhancer%%%-dependent plasmid constructs expressing the chloramphenicol acetyltransferase gene under the control of the polyomavirus early promoter verified that only the F441 enhancer had any significant activity in F9 cells. DNase I footprinting showed that the F441 mutation creates a strong binding site for purified CCAAT box transcription factor, which is identical to nuclear factor 1. The three other mutations at nucleotide 5258 alter the affinity and the quality of factor binding at this site.

9/3,AB/8 (Item 8 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

06053059 BIOSIS NO.: 000085016208
CELL TYPE SPECIFIC EXPRESSION OF PRE S1 ANTIGEN AND SECRETION OF HEPATITIS
B VIRUS SURFACE ANTIGEN BRIEF REPORT
AUTHOR: MARQUARDT O; HEERMANN K-H; SEIFER M; GERLICH W H
AUTHOR ADDRESS: FEDERAL RES. CENT. VIRUS DISEASES ANIM., P.O. BOX 1149,
D-7400 TUEBINGEN, W. GER.
JOURNAL: ARCH VIROL 96 (3-4). 1987. 249-256.
FULL JOURNAL NAME: Archives of Virology
CODEN: ARVID
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: Production of the three hepatitis B surface (HBs) proteins was studied in a hepatoma cell line (PLC/PRF/5) and two HBs antigen secreting cell lines (HeLa and mouse L-cells), which had been transfected by a viral genome isolated by molecular cloning from PLC/PRF/5 chromosomal %%%DNA%%%. The %%%DNA%%% used for %%%transfection%%% contains the
HBs-specific promoters and the %%%enhancer%%% which regulate the expression of HBs genes in the transfected cell lines. All three cell lines expressed well the small and middle HBs protein, but the larger pre S 1 containing protein was barely detectable in the L-cell. In vitro growth of the transfected HeLa cell as nude mouse tumour increased pre S 1 expression and suppressed secretion of HBsAg.

9/3,AB/9 (Item 9 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

04755006 BIOSIS NO.: 000080058133
TRANSCRIPTION CELL TYPE SPECIFICITY IS CONFERRED BY AN IMMUNOGLOBULIN V-H
GENE PROMOTER THAT INCLUDES A FUNCTIONAL CONSENSUS SEQUENCE
AUTHOR: MASON J O; WILLIAMS G T; NEUBERGER M S
AUTHOR ADDRESS: MRC LAB. MOLECULAR BIOLOGY, HILLS ROAD, CAMBRIDGE, CB2 2QH,
ENGLAND.
JOURNAL: CELL 41 (2). 1985. 479-488.
FULL JOURNAL NAME: Cell
CODEN: CELLB
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: IgH chain gene transcription was studied using %%%DNA%%%
%%%transfection%%%. The %%%enhancer%%% element identified in the mouse H
chain locus was active in pre-B and plasmacytoma cell lines, but no activity was detected in 2 T cell lymphomas. Even in the absence of the enhancer, cell type specificity of Ig gene transcription was still retained. Gene fusions were used to show that transcription cell type specificity is conferred by a VH gene promoter. Deletion analysis of this VH promoter indicates that a conserved octamer found 5' of the TATA box in Ig V genes is a functional part of the tissue-specific promoter upstream element.

9/3,AB/10 (Item 1 from file: 73)
DIALOG(R)File 73:EMBASE

05524525 EMBASE No: 1993292624
Retinoic acid induction of major histocompatibility complex class I genes in NTera-2 embryonal carcinoma cells involves induction of NF-kappaB (p50-p65) and retinoic acid receptor beta-retinoid X receptor beta heterodimers
Segars J.H.; Nagata T.; Bours V.; Medin J.A.; Franzoso G.; Blanco J.C.G.; Drew P.D.; Becker K.G.; An J.; Tang T.; Stephany D.A.; Neel B.; Siebenlist U.; Ozato K.
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Molecular and Cellular Biology (MOL. CELL. BIOL.) (United States) 1993
, 13/10 (6157-6169)
CODEN: MCEBD ISSN: 0270-7306
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Retinoic acid (RA) treatment of human embryonal carcinoma (EC) NTera-2 (NT2) cells induces expression of major histocompatibility complex (MHC) class I and beta-2 microglobulin surface molecules. We found that this induction was accompanied by increased levels of MHC class I mRNA, which
was attributable to the activation of the two conserved upstream enhancers, region I (NF-kappaB like) and region II. This activation coincided with the induction of nuclear factor binding activities specific for the two enhancers. Region I binding activity was not present in undifferentiated NT2 cells, but binding of an NF-kappaB heterodimer, p50-p65, was induced following RA treatment. The p50-p65 heterodimer was produced as a result of
de novo induction of p50 and p65 mRNAs. Region II binding activity was present in undifferentiated cells at low levels but was greatly augmented by RA treatment because of activation of a nuclear hormone receptor heterodimer composed of the retinoid X receptor (RXRbeta) and the RA receptor (RARbeta). The RXRbeta-RARbeta heterodimer also bound RA responsive elements present in other genes which are likely to be involved in RA triggering of EC cell differentiation. Furthermore, transfection of p50 and p65 into undifferentiated NT2 cells synergistically activated region I-dependent MHC class I reporter activity. A similar increase in MHC class I reporter activity was demonstrated by cotransfection of RXRbeta and RARbeta. These data show that following RA treatment, heterodimers of two transcription factor families are induced to bind to the MHC enhancers, which at least partly accounts for RA induction of MHC class I expression in NT2 EC cells.

9/3,AB/11 (Item 2 from file: 73)
DIALOG(R)File 73:EMBASE

05499690 EMBASE No: 1993267789
Location of a glucose-dependent response region in the rat S14 promoter
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Endocrinology (ENDOCRINOLOGY) (United States) 1993, 133/3 (1221-1229)
CODEN: ENDOA ISSN: 0013-7227
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

The rat S14 gene provides an excellent model to examine the DNA sequences
associated with carbohydrate regulation of hepatic gene transcription. We constructed internal deletions within 5 kilobases of the 5'-up-stream region and ligated these to a luciferase reporter gene. The constructs were transfected into primary hepatocytes and pancreatic HIT cells. In hepatocytes, an increase in the medium glucose concentration led to a parallel increase in endogenous mRNA S14 content and transfected luciferase reporter activity driven by 5 kilobases of the S14 promoter. Internal deletions of several sequences from -2706 to -285 each led to a decrease in glucose-stimulated activity, suggesting that multiple elements are necessary for the transcriptional response to glucose. Deletion from -1583 to -1069 nearly abolished the glucose effect in both cell types and delineated the carbohydrate response element (CHORE). The CHORE deletion
was specific for glucose, because it did not alter the response to thyroid hormone, another known regulator of this gene. Although the CHORE sequence
did not confer glucose activation to either a heterologous promoter or the basal S14 promoter (bases -285 to +19), a 5-fold enhanced response was observed when two copies of the CHORE were ligated to the first 2110 basepairs of the S14 promoter. The results suggest that the CHORE contains a carbohydrate regulatory element and operates as an enhancer in concert with other sequences within the S14 gene.

9/3,AB/12 (Item 3 from file: 73)
DIALOG(R)File 73:EMBASE

05490643 EMBASE No: 1993258742
Both a ubiquitous factor mTEF-1 and a distinct muscle-specific factor bind to the M-CAT motif of the myosin heavy chain beta gene
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Molecular Medicine Unit, Beth Israel Hospital, 330 Brookline Avenue,Boston, MA 02215 United States
Nucleic Acids Research (NUCLEIC ACIDS RES.) (United Kingdom) 1993,
21/17 (4103-4110)
CODEN: NARHA ISSN: 0305-1048
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

The A element, a fourteen base pair sequence in the rabbit myosin heavy chain (HC) beta promoter (-276/-263), contains the M-CAT motif, a cis-acting element found in several muscle-specific genes. The A element is essential for muscle-specific transcription of the myosin HCbeta gene. Recently, we have identified both muscle-specific and ubiquitous factors (A1 and A2 factors, respectively) that bind to the A element. Since the sequence of the A element is very similar to the GTIIC motif in the SV40 enhancer, we examined the relationship between A-element-binding factors and a GTIIC binding factor TEF-1, recently isolated from HeLa cells. The GTIIC motif was bound by the A1 and A2 factors in muscle nuclear extracts and competed with the A element for DNA - protein complex formation. Antibody against human TEF-1 'supershifted' the ubiquitous A2 factor - DNA complex, but did not alter the mobility of the muscle-specific A1 factor-DNA complex. We isolated a murine cDNA clone (mTEF-1) from a cardiac
cDNA library. The clone is highly homologous to Hela cell TEF-1. The in vitro transcription/translation product of mTEF-1 cDNA bound to the A element, and the DNA binding property of mTEF-1 was identical to that of the A2 factor. Transfection of mTEF-1 cDNA into muscle and non-muscle cells
confirmed that mTEF-1 corresponds to A2, but not to A1 factors. The mTEF-1
mRNA is expressed abundantly in skeletal and cardiac muscles, kidney and lung, but it is also expressed at lower levels in other tissues. These results suggest that the M-CAT binding factors consist of two different factors; the ubiquitous A2 is encoded by mTEF-1, but the muscle-specific A1 factor is distinct from mTEF-1.

9/3,AB/13 (Item 4 from file: 73)
DIALOG(R)File 73:EMBASE

05402733 EMBASE No: 1993170832
A tissue-specific enhancer confers Pit-1-dependent morphogen inducibility and autoregulation on the pit-1 gene
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Genes and Development (GENES DEV.) (United States) 1993, 7/6 (913-932)
CODEN: GEDEE ISSN: 0890-9369
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Pit-1 is a tissue-specific POU domain factor obligatory for the appearance of three cell phenotypes in the anterior pituitary gland. Expression of the pit-1 gene requires the actions of a cell-specific 390-bp enhancer, located 10 kb 5' of the pit-1 transcription initiation site, within sequence that proves essential for effective pituitary targeting of transgene expression during murine development. The enhancer requires the concerted actions of a cell-specific cis-active element, Pit-1 autoregulatory sites, and atypical morphogen response elements. Pituitary ontogeny in the Pit-1-defective Snell dwarf mouse reveals that pit-1 autoregulation is not required for initial activation or continued expression during critical phases of Pit-1 target gene activation but, subsequently, is necessary for maintenance of pit-1 gene expression following birth. A potent 1,25-dihydroxyvitamin Dinf 3-responsive enhancer element defines a physiological site in which a single nucleotide alteration in the sequence of core binding motifs modulates the spacing rules for nuclear receptor response elements. Unexpectedly, the major retinoic acid response element is absolutely dependent on Pit-1 for retinoic acid receptor function. On this DNA element, Pit-1 appears to function as a coregulator of the retinoic acid receptor, suggesting an intriguing linkage between a cell- specific transcription factor and the actions of morphogen receptors that is likely to be prototypic of mechanisms by which other cell-specific transcription factors might confer morphogen receptor responsivity during mammalian organogenesis.

9/3,AB/14 (Item 5 from file: 73)
DIALOG(R)File 73:EMBASE

05380894 EMBASE No: 1993148993
Molecular basis of a multiple lymphokine deficiency in a patient with severe combined immunodeficiency
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Department of Pediatrics, Harvard Medical School, Children's Hospital,Boston, MA 02115 United States
Proceedings of the National Academy of Sciences of the United States of America (PROC. NATL. ACAD. SCI. U. S. A.) (United States) 1993, 90/10
(4728-4732)
CODEN: PNASA ISSN: 0027-8424
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

We have previously reported that the T lymphocytes of a child with severe combined immunodeficiency are defective in the transcription of several lymphokine genes that include IL2, IL3, IL4, and IL5, which encode interleukins 2, 3, 4, and 5 (IL-2, -3, -4, and -5). To determine whether the defect in the patient's T lymphocytes involved a trans-acting factor common to the affected lymphokine genes, we examined the ability of nuclear factors from the patient's T lymphocytes to bind response elements present in the regulatory region of IL2. Nuclear factor NF-kB, activation protein 1

(AP-1), OCT-1, and NF-IL-2B binding activity were normal. In contrast, the binding of the nuclear factor of activated T cells (NF-AT) to its response element in the IL2 enhancer and to an NF-AT-like response element present in the IL4 enhancer was abnormal. To ascertain whether the abnormal NF-AT binding activity was related to an impaired function, we transfected patient and control T lymphocytes with constructs containing the reporter gene encoding chloramphenicol acetyl transferase (CAT) under the control of the entire IL2 regulatory region or of multimers of individual enhancer sequences. CAT expression directed by the IL2 regulatory region or by a multimer of the NF- AT-binding site was markedly lower in the patient relative to controls. In contrast, CAT gene expression directed by a multimer of the OCT-1 proximal (OCT-1p)-binding site was equivalent in patient and controls. These results indicate that an abnormality of/or influencing NF-AT may underlie the multiple lymphokine deficiency in this patient.

9/3,AB/15 (Item 6 from file: 73)
DIALOG(R)File 73:EMBASE

05346253 EMBASE No: 1993114338
Regulation of hepatitis B virus gene expression
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Journal of Hepatology (J. HEPATOL.) (Ireland) 1993, 17/SUPPL. 3 (S20-S23)
CODEN: JOHEE ISSN: 0168-8278
DOCUMENT TYPE: Journal; Conference Paper
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Human hepatitis B virus (HBV) mainly infects hepatocytes. HB viral gene expression has been demonstrated to be liver-specific using %%%DNA%%% %%%transfection%%% methods. This liver-specific gene expression is regulated by promoter/%%%enhancer%%% elements. HBV contains two enhancer
elements. Enhancer element I has been studied in detail at the DNA-protein level. This is further substantiated by DNA transfections of liver and non-liver cell lines with expression plasmids containing enhancer elements controlling the transcription of reporter genes. Genetic analysis of the enhancer elements defined the minimal sequences which play a key role in the regulation of enhancer function. One of the factors binding in this region is RXRalpha. Using only the DNA binding domain of the liver-specific RXRalpha expressed in E. coli, we demonstrated binding of RXRalpha to the putative retinoic acid receptor response element (RARE) in the HBV enhancer. Our studies implicate a potentially important role of retinoic acid and its receptor in the liver-specific regulation of HBV gene expression and the disease pathogenesis associated with infection.

9/3,AB/16 (Item 7 from file: 73)
DIALOG(R)File 73:EMBASE

05323377 EMBASE No: 1993091462
IkappaB/MAD-3 masks the nuclear localization signal of NF-kappaB p65 and
requires the transactivation domain to inhibit NF-kappaB p65 DNA binding
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Howard Hughes Medical Institute, 802 Light Hall, Vanderbilt University,Nashville, TN 37232-0295 United States
Molecular Biology of the Cell (MOL. BIOL. CELL) (United States) 1992, 3/12 (1339-1352)
CODEN: MBCEE ISSN: 1059-1524
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

The active nuclear form of the NF-kappaB transcription factor complex is composed of two DNA binding subunits, NF-kappaB p65 and NF-kappaB p50, both
of which share extensive N-terminal sequence homology with the v-rel oncogene product. The NF-kappaB p65 subunit provides the transactivation activity in this complex and serves as an intracellular receptor for a cytoplasmic inhibitor of NF-kappaB, termed IkappaB. In contrast, NF-kappaB
p50 alone fails to stimulate kappaB- directed transcription, and based on prior in vitro studies, is not directly regulated by IkappaB. To investigate the molecular basis for the critical regulatory interaction between NF-kappaB and IkappaB/MAD-3, a series of human NF- kappaB p65
mutants was identified that functionally segregated DNA binding, IkappaB-mediated inhibition, and IkappaB-induced nuclear exclusion of this transcription factor. Results from in vivo expression studies performed with these NF-kappaB p65 mutants revealed the following: 1) IkappaB/MAD-3
completely inhibits NF-kappaB p65-dependent transcriptional activation mediated through the human immunodeficiency virus type 1 kappaB enhancer in
human T lymphocytes, 2) the binding of IkappaB/MAD-3 to NF-kappaB p65 is
sufficient to retarget NF-kappaB p65 from the nucleus to the cytoplasm, 3) selective deletion of the functional nuclear localization signal present in the Rel homology domain of NF-kappaB p65 disrupts its ability to engage IkappaB/MAD-3, and 4) the unique C-terminus of NF-kappaB p65 attenuates its
own nuclear localization and contains sequences that are required for IkappaB-mediated inhibition of NF-kappaB p65 DNA binding activity. Together, these findings suggest that the nuclear localization signal and transactivation domain of NF-kappaB p65 constitute a bipartite system that is critically involved in the inhibitory function of IkappaB/MAD-3. Unexpectedly, our in vivo studies also demonstrate that IkappaB/MAD-3 binds
directly to NF-kappaB p50. This interaction is functional as it leads to retargeting of NF-kappaB p50 from the nucleus to the cytoplasm. However, no
loss of DNA binding activity is observed, presumably reflecting the unique C- terminal domain that is distinct from that present in NF-kappaB p65.

9/3,AB/17 (Item 8 from file: 73)
DIALOG(R)File 73:EMBASE

05253247 EMBASE No: 1993021332
Identification of control elements 3' to the human keratin 1 gene that regulate cell type and differentiation-specific expression
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Cellular Carcinogenesis Laboratory, National Cancer Institute, National Institutes of Health,Bethesda, MD 20892 United States
Journal of Biological Chemistry (J. BIOL. CHEM.) (United States) 1993, 268/1 (377-384)
CODEN: JBCHA ISSN: 0021-9258
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

To define DNA regulatory elements that mediate the response of the keratin 1 (K1) gene to Casup 2sup +-induced differentiation, regions spanning the 5'- and 3'-flanking sequences, coding regions, and introns from the human K1 gene were cloned into vectors containing the chloramphenicol acetyltransferase (CAT) reporter gene and transfected into cultured mouse keratinocytes. A 4.3- kilobase (kb) region located 3' to the K1 gene stimulated CAT activity in response to increasing Casup 2sup + concentrations from 0.05 mM (basal cells) to 1.2 mM (differentiated cells). The 4.3-kb fragment was also active in human epidermal cells but inactive in NIH 3T3 cells and primary mouse fibroblasts. Deletion analysis localized the activity to the terminal 1682 base pairs (bp) of the flanking sequence which retained Casup 2sup + sensitivity in epidermal cells but was not active in mesenchymal cells. Removal of a 207-base pair element created an enhancer which was active in both epidermal and mesenchumal cells but was still Casup 2sup +-inducible. Further deletions identified two elements which functioned synergistically to give maximal Casup 2sup +-sensitive activity. Stably transfected epidermal cell lines expressed CAT under the direction of these elements when grafted onto nude mice to reconstitute an intact epidermis. Previously reported keratin regulatory motifs were not contained in the 1682-bp fragment, but an AP-1 site was identified in one of the synergistic subunits.

9/3,AB/18 (Item 9 from file: 73)
DIALOG(R)File 73:EMBASE

05238837 EMBASE No: 1993006922
Hepatocyte-specific expression of the hepatitis B virus core promoter

depends on both positive and negative regulation
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Molecular and Cellular Biology (MOL. CELL. BIOL.) (United States) 1993
, 13/1 (443-448)
CODEN: MCEBD ISSN: 0270-7306
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

The core promoter of hepatitis B virus shows hepatocyte specificity, which is largely dependent on an upstream regulatory sequence that overlaps with viral enhancer II. Footprint analyses by numerous groups have shown binding by cellular proteins over a large stretch of DNA in this region, but the identity of these proteins and their role in core promoter function remain largely unknown. We present data showing that the transcription factor HNF-4 is one such factor, as it activates the core promoter approximately 20-fold via a binding site within the upstream regulatory sequence. Since HNF-4 is enriched in hepatocytes, its involvement at least partially explains the hepatocyte specificity of this promoter. In addition, however, we have found a region upstream of the HNF-4 site that suppresses activation by HNF-4 in HeLa cells but not in hepatoma cells. Therefore, the cell type specificity of the core promoter appears to result from a combination of activation by one or more factors specifically enriched in hepatocytes and repression by some other factor(s) present in nonhepatocytes, and it may provide a convenient model system for studying this type of tissue-specific transcriptional regulation in mammalian cells.

9/3,AB/19 (Item 10 from file: 73)
DIALOG(R)File 73:EMBASE
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05225294 EMBASE No: 1992365528
An examination of the effects of double-strand breaks on extrachromosomal recombination in mammalian cells
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Genetics (GENETICS) (United States) 1992, 132/4 (1081-1093)
CODEN: GENTA ISSN: 0016-6731
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

We studied the effects of double-strand breaks on intramolecular extrachromosomal homologous recombination in mammalian cells. Pairs of defective herpes thymidine kinase (tk) sequences were introduced into mouse Ltksup - cells on a DNA molecule that also contained a neo gene under control of the SV40 early promoter/enhancer. With the majority of the constructs used, gene conversions or double crossovers, but not single crossovers, were recoverable. DNA was linearized with various restriction enzymes prior to transfection. Recombination events producing a functional tk gene were monitored by selecting for tk-positive colonies. For double-strand breaks placed outside of the region of homology, maximal recombination frequencies were measured when a break placed the two tk sequences downstream from the SV40 early promoter/enhancer. We observed no
relationship between recombination frequency and either the distance between a break and the tk sequences or the distance between the tk sequences. The quantitative effects of the breaks appeared to depend on the degree of homology between the tk sequences. We also observed that inverted
repeats recombined as efficiently as direct repeats. The data indicated that the breaks influenced recombination indirectly, perhaps by affecting the binding of a factor(s) to the SV40 promoter region which in turn stimulated or inhibited recombination of the tk sequences. Taken together, we believe that our results provide strong evidence for the existence of a pathway for extrachromosomal homologous recombination in mammalian cells
that is distinct from single- strand annealing. We discuss the possibility that intrachromosomal and extrachromosomal recombination have mechanisms in
common.

9/3,AB/20 (Item 11 from file: 73)
DIALOG(R)File 73:EMBASE
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05182627 EMBASE No: 1992322861
Suppression of glutathione transferase P expression by glucocorticoid
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Biochemical and Biophysical Research Communications (BIOCHEM. BIOPHYS.
RES. COMMUN.) (United States) 1992, 187/2 (976-983)
CODEN: BBRCA ISSN: 0006-291X
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

A strong enhancer element, GPEI, of the glutathione transferase P gene (GST-P) gene is composed of two phorbol 12-O-tetradecanoate 13-acetate (TPA) responsive element (TRE)-like sequences at opposite orientation. Unlike TRE sequences of other genes, GPEI exhibits a strong enhancer activity in F9 cells, which contains little AP-1. GPEI bound to AP-1 In vitro and GST-P expression was activated by TPA and exogenously introduced
c-jun gene in a rat fibroblast cell line. Both the stimulated expression of GST-P gene by TPA and that by over-expressed c-Jun were suppressed to the basal level by dexamethasone, an inhibitor of AP-1. Basal expression of GST-P gene, however, was not inhibited by dexamethasone. Transfected chloramphenicol acetyltransferase (CAT) gene having GPEI also behaved as the endogenous GST-P gene. These results indicate that the GPEI is activated by AP-1 but constitutive activity of this enhancer in a rat fibroblast cell line 3Y1 cells is due to some unknown mechanism other than AP-1.

9/3,AB/21 (Item 12 from file: 73)
DIALOG(R)File 73:EMBASE
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05153595 EMBASE No: 1992293828
A single MEF-2 site is a major positive regulatory element required for transcription of the muscle-specific subunit of the human phosphoglycerate mutase gene in skeletal and cardiac muscle cells
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; Kishimoto T.; Sakoda S.
Department of Neurology, Osaka University Hospital, 1-1-50 Fukushima,Fukushima-ku, Osaka 553 Japan
Molecular and Cellular Biology (MOL. CELL. BIOL.) (United States) 1992
, 12/10 (4384-4390)
CODEN: MCEBD ISSN: 0270-7306
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

In order to analyze the transcriptional regulation of the muscle-specific subunit of the human phosphoglycerate mutase (PGAM-M) gene, chimeric genes
composed of the upstream region of the PGAM-M gene and the bacterial chloramphenicol acetyltransferase (CAT) gene were constructed and transfected into C2C12 skeletal myocytes, primary cultured cardiac muscle cells, and C3H10T1/2 fibroblasts. The expression of chimeric reporter genes was restricted in skeletal and cardiac muscle cells. In C2C12 myotubes and primary cultured cardiac muscle cells, the segment between nucleotides -165 and +41 relative to the transcription initiation site was sufficient to confer maximal CAT activity. This region contains two E boxes and one MEF-2
motif. Deletion and substitution mutation analysis showed that a single MEF-2 motif but not the E boxes had a substantial effect on skeletal and cardiac muscle-specific enhancer activity and that the cardiac muscle-specific negative regulatory region was located between nucleotides -505 and -165. When the PGAM-M gene constructs were cotransfected with MyoD
into C3H10T1/2, the profile of CAT activity was similar to that observed in C2C12 myotubes. Gel mobility shift analysis revealed that when the nuclear extracts from skeletal and cardiac muscle cells were used, the PGAM-M MEF-2
site generated the specific band that was inhibited by unlabeled PGAM-M MEF-2 and muscle creatine kinase MEF-2 oligomers but not by a mutant PGAM-M
MEF-2 oligomer. These observations define the PGAM-M enhancer as the

only
cardiac- and skeletal-muscle-specific enhancer characterized thus far that is mainly activated through MEF-2.

9/3,AB/22 (Item 13 from file: 73)
DIALOG(R)File 73:EMBASE

05087893 EMBASE No: 1992228109
Rat cellular mutants for expression of mRNA from the long terminal repeat of murine retrovirus
Isaka M.; Inoue H.; Tsukiyama T.; Niwa O.; Hakura A.
Department of Tumor Virology, Res. Inst. for Microbial Diseases, Osaka University, 3-1 Yamadaoka,Suita, Osaka 565 Japan
Virology (VIROLOGY) (United States) 1992, 189/1 (141-149)
CODEN: VIRLA ISSN: 0042-6822
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Previously we isolated revertants from a rat cell line transformed by recombinant murine retrovirus containing the v-src gene. These mutant cell lines, R78 and R107, showed low src-kinase activity, but retained wild-type transforming retrovirus, suggesting that a cellular gene involved in viral gene expression was mutated. Southern and Northern hybridization analyses showed that the expression of viral mRNAs from the integrated proviral DNA was reduced in these mutant cells. DNA transfection experiments with various transforming genes and promoters revealed that the mutant cell lines were resistant to transformation by transforming genes expressed under the long terminal repeat (LTR) of Moloney murine leukemia virus (Mo-MuLV). In contrast, these cell lines could be efficiently transformed by the same transforming genes with human metallothionein promoter, polyomavirus promoter-enhancer, and c-H-ras promoter. Transient expression assays using plasmids containing the CAT gene under the LTR of Mo-MuLV also
showed that CAT activity expressed under the LTR in these mutant cells was lower than that in the parental cell line, No. 7. These results suggest
that cellular mutations of R78 and R107 cells affect specific transcription from the LTR of Mo-MuLV. Studies using various constructs of the LTR CAT
indicated that the region responsible for the repression was located in a fragment (-328 to - 150) of the LTR containing the 72-bp repeat enhancer. Somatic cell hybridization experiments showed that the mutant phenotype of these mutant cell lines is dominant to that of the parental cell line.

9/3,AB/23 (Item 14 from file: 73)
DIALOG(R)File 73:EMBASE

05084932 EMBASE No: 1992225148
Oct2 transactivation from a remote enhancer position requires a B-cell-restricted activity
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Zentrum Molekulare Biol. Heidelberg, Im Neuenheimer Feld 282,D-6900 Heidelberg Germany
Molecular and Cellular Biology (MOL. CELL. BIOL.) (United States) 1992
, 12/7 (3107-3116)
CODEN: MCEBD ISSN: 0270-7306
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Previous cotransfection experiments had demonstrated that ectopic expression of the lymphocyte-specific transcription factor Oct2 could efficiently activate a promoter containing an octamer motif. Oct2 expression was unable to stimulate a multimerized octamer enhancer element in HeLa cells, however. We have tested a variety of Oct2 isoforms generated by alternative splicing for the capability to activate an octamer enhancer in nonlymphoid cells and a B-cell line. Our analyses show that several Oct2 isoforms can stimulate from a remote position but that this stimulation is restricted to B cells. This result indicates the involvement of either a B-cell-specific cofactor or a specific modification of a cofactor or the Oct2 protein in Oct2-mediated enhancer activation. Mutational analyses indicate that the carboxy-terminal domain of Oct2 is critical for enhancer activation. Moreover, this domain conferred enhancing activity when fused to the Oct1 protein, which by itself was unable to stimulate from a remote position. The glutamine-rich activation domain present in the amino-terminal portion of Oct2 and the POU domain contribute only marginally to the transactivation function from a distal position.

9/3,AB/24 (Item 15 from file: 73)
DIALOG(R)File 73:EMBASE

05072078 EMBASE No: 1992212294
Herpes simplex virus infection selectively stimulates accumulation of beta interferon reporter gene mRNA by a posttranscriptional mechanism
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United States
Journal of Virology (J. VIROL.) (United States) 1992, 66/6 (3811-3822)
CODEN: JOVIA ISSN: 0022-538X
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

To study the mechanism of a novel herpes simplex virus (HSV) activity that stimulates expression of reporter genes containing beta interferon (IFN-beta)- coding sequences, we have established permanent DNA-transfected
cell lines that each contain two distinct hybrid genes encoding mRNA species with different half-lives. These reporter genes comprised either the human IFN-beta- or bacterial chloramphenicol acetyltransferase (CAT)-coding and 3' untranslated regions placed under the transcriptional control of the powerful major immediate-early promoter-enhancer region (IE94) from simian cytomegalovirus. Most of the dual-transfected cell lines yielded significant levels of steady-state IE94-CAT mRNA and abundant constitutive synthesis of CAT enzyme activity, whereas no accumulation of IE94-IFN mRNA could be detected. However, infection with HSV type 1 resulted in a 300-fold increase in IE94-IFN-specific mRNA transcripts, compared with no more than 3- to 5- fold stimulation of IE94-CAT-specific mRNA. In contrast, cycloheximide treatment increased stable mRNA levels and
transcription initiation rates from both the IE94-IFN and IE94-CAT hybrid genes. Run-on transcription assays in isolated nuclei suggested that induction of IE94-IFN gene expression by HSV type 1 occurred predominantly
at the posttranscriptional level. Enhancement of the unstable IFN mRNA species after HSV infection was also observed in cell lines containing a simian virus 40 enhancer-driven IFN gene (SV2-IFN). Similarly, in transient-transfection assays, both SV2-IFN and IE94-IFN gave only low basal mRNA synthesis, but superinfection with HSV again led to high-level accumulation of IFN mRNA. Finally, substitution of the SV2-IFN gene 3' region with poly(A) and splicing signals from the SV2-CAT gene cassette led to stabilization of the IFN mRNA even in the absence of HSV. Therefore, we conclude that HSV infection leads to selective accumulation of IFN-beta mRNA by a posttranscriptional mechanism that is reporter gene specific and promoter independent.

9/3,AB/25 (Item 16 from file: 73)
DIALOG(R)File 73:EMBASE

04994165 EMBASE No: 1992134381
Impaired transcription of the poly rI:rC- and interferon-activatable 202 gene in mice and cell lines from the C57BL/6 strain
Gariglio M.; Panico S.; Cavallo G.; Divaker C.; Lengyel P.; Landolfo S.
Institute of Microbiology, Medical School, University of Torino,Torino Italy
Virology (VIROLOGY) (United States) 1992, 187/1 (115-123)
CODEN: VIRLA ISSN: 0042-6822
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Activation of 202 and (2'-5')(A)(n) synthetase genes after injection of interferon (IFN)-inducing, double-stranded, poly rI:rC was compared in various mouse strains. The 202 mRNA level increased 4.5- to 10-fold in DBA/2, BALB/c, and C3H/HeJ mice, whereas in C57BL/6 mice it rose only to
about that in untreated DBA/2, BALB/c, and C3H/HeJ mice. To determine whether this low level was due to a reduced transcription rate, a nuclear 'run-on' assay was performed with NIH 3T3 cells derived from C57BL/6 mice.

IFN-alpha increased the 202 mRNA transcription severalfold in NIH 3T3 cells
only, and that of a (2'- 5')(A)(n) synthetase gene in both cell lines. The possibility that an alteration in transacting factors could be responsible for this difference was examined. For this purpose the 5' terminal flanking region (called the b segment, about 0.8 kb) of the 202 gene was linked to a heterologous reporter gene-chloramphenicolacetyl-transferase (CAT) and transfected into normal or transformed NIH 3T3 cells and into various C57BL/6-derived cell lines. IFN-alpha induced strong CAT activity in transfected normal or transformed NIH 3T3 cells, but a much lower activity in those from C57BL/6 mice. The b segment contains an IFN-responsive element (ISRE) (35 bp) homologous to that present in several other IFN-inducible genes. Three tandem copies of the 202 ISRE were linked to an enhancerless SV40 early promoter driving an influenza virus hemagglutinin (HA) cDNA segment. No increase in HA mRNA expression was detected in the
transfected BLK cell line derived from C57BL/6 mice following IFN treatment, whereas in the NIH 3T3 cell line, the IFN treatment resulted in a 2.5-fold increase. These and other results suggest that C57BL/6 mice and cell lines derived from them might carry defective transacting factors impairing the ability of IFN-alpha to activate the 202 gene without impairing its ability to activate a (2'-5')(A)(n) synthetase gene.

9/3,AB/26 (Item 17 from file: 73)
DIALOG(R)File 73:EMBASE

04942297 EMBASE No: 1992082513
The LCR-like alpha-globin positive regulatory element functions as an enhancer in transiently transfected cells during erythroid differentiation.
Pondel M.D.; George M.; Proudfoot N.J.
School of Pathology, University of Oxford,Oxford OX1 3RE United Kingdom
Nucleic Acids Research (NUCLEIC ACIDS RES.) (United Kingdom) 1992,
20/2 (237-243)
CODEN: NARHA ISSN: 0305-1048
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

A positive regulatory element (PRE) similar to the locus control region (LCR) of the human beta-globin gene cluster has recently been identified 40 kb upstream of the human zeta-globin mRNA cap site (Higgs D.R. W.G. Wood,
A.P. Jarman, J. Sharpe, J. Lida, I.M. Pretorius, and H. Ayyub. 1990). We investigated the influence of the alphaPRE on human alpha-globin promoter activity in transiently transfected cells. The introduction of the alphaPRE into alpha-globin promoter/CAT expression constructs increased alpha-globin promoter activity by 15 - 30 fold in a human erythroid cell line (Putko) as well as in mouse erythroleukemia cells (MELCs) induced with hexamethylene bisacetamide (HMBA). When these constructs were introduced into uninduced
MELCs or HeLa cells, only a 2 - 3 fold increase in alpha-globin promoter activity was observed. Deletion of 600 bp of alpha-globin 5' flanking sequences containing six putative SP1-binding sites had no significant effect on levels of alpha-globin promoter enhancement by the alphaPRE. We further demonstrated that the (alphaPRE and HS2 of the beta-LCR could similarly enhance transcriptional activity of the SV40 early promoter in HMBA induced MELCs. Finally, we showed that alpha-globin promoter activity
in the presence of the alphaPRE increased with continued HMBA exposure and
was coincident with transcriptional activation of endogenous globin genes.

9/3,AB/27 (Item 18 from file: 73)
DIALOG(R)File 73:EMBASE

04917871 EMBASE No: 1992058087
Inhibitory effect of prostaglandin Deltasup 1sup 2-PGJ2 on cell proliferation and alpha-fetoprotein expression in HuH-7 human hepatoma cells
Mitsuoka S.; Otsuru A.; Nakao K.; Tsutsumi T.; Tsuruta S.; Hamasaki K.; Shima M.; Nakata K.; Tamaoki T.; Nagataki S.
Dept. Medical Biochemistry, University of Calgary,Calgary, Alta. T2N 4N1 Canada
Prostaglandins (PROSTAGLANDINS) (United States) 1992, 43/2 (189-197)
CODEN: PRGLB ISSN: 0090-6980
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

9-Deoxy-Deltasup 9,Deltasup 1sup 2-13,14-dihydro-prostaglandin D2 (Deltasup 1sup 2-PGJ2) is a potent inhibitor of proliferation of tumor cells. In the present study, the effect of Deltasup 1sup 2-PGJ2 on the alpha-fetoprotein (AFP) and the albumin gene expression was analyzed in HuH-7 human hepatoma cells. Deltasup 1sup 2-PGJ2 inhibited the cell growth
and reduced the medium AFP concentrations dose-dependently. To determine whether this decline of AFP depends only on the relative decrease in cell numbers by Deltasup 1sup 2-PGJ2, or is in part, due to the decrease in the cellular AFP synthesis by Deltasup 1sup 2-PGJ2, Northern blot analysis was performed in this study. By Northern blotting, it was shown that Deltasup 1sup 2-PGJ2 caused a marked reduction in the levels of the AFP mRNA and the
albumin mRNA. In contrast, the level of the beta-actin mRNA was not changed
by Deltasup 1sup 2-PGJ2. In the transient chloramphenicol acetyltransferase %%%plasmid%%% %%%transfection%%% experiments, Deltasup 1sup 2-PGJ2 did not
suppress the AFP %%%enhancer%%% activity, which possibly regulates both the
AFP and the albumin gene expression in HuH-7 hepatoma cells, but resulted in the selective repression of the AFP and the albumin promoter activity. These results suggest that Deltasup 1sup 2-PGJ2 suppresses not only cell growth but also expression of the AFP gene and the albumin gene at the transcriptional level in human hepatoma cells.

9/3,AB/28 (Item 19 from file: 73)
DIALOG(R)File 73:EMBASE

04845037 EMBASE No: 1991339773
Anti-IgM antibodies down modulate mu-enhancer activity and OTF2 levels in
LPS-stimulated mouse splenic B-cells
Chen U.; Scheuermann R.H.; Wirth T.; Gerster T.; Roeder R.G.; Harshman K.
; Berger C.
Basel Institute for Immunology, Grenzacherstrasse 487,CH-4005 Basel Switzerland
Nucleic Acids Research (NUCLEIC ACIDS RES.) (United Kingdom) 1991,
19/21 (5981-5989)
CODEN: NARHA ISSN: 0305-1048
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Stimulation of small, resting, splenic B cells with bacterial lipopolysaccharide (LPS) induces proliferation, differentiation to plasma cell formation, and the expression of immunoglobulin heavy chain (IgH). When this is combined with agents which crosslink surface Ig, differentiation and the induction of surface immunoglobulin are suppressed even though proliferation proceeds. We find that anti-mu antibodies suppresses Ig gene expression of transfected mu constructs, even if either the membrane or secretory segments have been deleted. We examined the effects of anti-mu treatment on the IgH enhancer (IgHE) attached to a heterologous test gene (CAT). Indeed the IgH enhancer alone was subject to anti-mu suppression, while the SV40 enhancer was insensitive. To determine what was responsible for suppression of enhancer function by anti-mu we examined nuclear extracts from stimulated splenic B cells for the presence of sequence-specific DNA binding activities to various sites within the enhancer. We found two specific differences - an induction in muE5 binding activity, and a reduction in octamer transcription factor 2 (OTF2) binding activity, after anti-mu treatment. Analysis of these cells by in situ immunofluorescence with anti-OTF2 antibodies suggests that the nuclear localization of OTF2 in anti-mu treated cells may change, as well as its absolute level.

9/3,AB/29 (Item 20 from file: 73)
DIALOG(R)File 73:EMBASE

04810354 EMBASE No: 1991305090
Regulatory elements and DNA-binding proteins mediating transcription from the chicken very-low-density apolipoprotein II gene
Beekman J.M.; Wijnholds J.; Schippers I.J.; Pot W.; Gruber M.; Geert A.B.
Laboratory of Biochemistry, University of Groningen, Nijenborgh 16,9747 AG Groningen Netherlands
Nucleic Acids Research (NUCLEIC ACIDS RES.) (United Kingdom) 1991,
19/19 (5371-5377)
CODEN: NARHA ISSN: 0305-1048
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

The chicken Very-Low-Density Apolipoproteln II (apoVLDL II) gene is specifically expressed in liver in response to estrogen. In this study, we performed a functional analysis of the 300-base pair region immediately 5' to the gene by gene transfer of chloramphenicol acetyl transferase (CAT) constructs into chicken embryonic hepatocytes (CEH). Two estrogen response
elements (EREs) could be distinguished which together form a potent estrogen response unit. Stimulation of transient expression by co-transfection with a plasmid expressing rat C/EBP confirmed that a similar protein in chicken liver may be involved in apoVLDL II transcription. in vitro DNaseI footprinting and band-shift analysis with liver, oviduct and spleen nuclear extract revealed the tissue distribution of the proteins binding to the promoter region. A liver-specific protein bound to multiple sites of which some resembled the recognition sequence of the CCAAT/Enhancer binding protein, C/EBP. Of the other proteins binding to
the apoVLDL II promoter, one was identified as the liver-specific LF-A1 by mobility shift analysis, using purified bovine LF-A1, and another as the general COUP-transcription factor, using an antiserum against the human COUP-TF.

9/3,AB/30 (Item 21 from file: 73)
DIALOG(R)File 73:EMBASE
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04810347 EMBASE No: 1991305083
Adult chicken alpha-globin gene expression in transfected QT6 quail cells: Evidence for a negative regulatory element in the alphaD gene region
Lewis W.; Lee J.-D.; Dodgson J.B.
Department of Microbiology, Michigan State University,East Lansing, MI 48824 United States
Nucleic Acids Research (NUCLEIC ACIDS RES.) (United Kingdom) 1991,
19/19 (5321-5329)
CODEN: NARHA ISSN: 0305-1048
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

The chicken adult alpha-globin genes, alphaA and alphaD, are closely linked in chromosomal DNA and are coordinately expressed in vivo in an approximate 3:1 ratio, respectively. When subcloned DNAs containing one or the other gene are stably transfected into QT6 quail fibroblasts, the alphaA-globin gene is expressed at measurable RNA levels, but the alphaD gene Is not. The alphaA gene expression can be considerably increased by the presence of a linked Rous sarcoma virus long terminal repeat enhancer, but that of the alphaD gene remains undetectable. Transfection with subclones containing both genes, either in cis or in trans, leads to considerably reduced alphaA RNA levels and still no observable alphaD gene expression. Transfection with deleted subclones suggests that maximal expression levels in this system require the alphaA-globln gene promoter, as opposed to that of the alphaD gene, but that such expression Is greatly reduced by one or more DNA sequences which lie approximately 2,000 base pairs upstream of the alphaA gene, within the body of the alphaD gene.

9/3,AB/31 (Item 22 from file: 73)
DIALOG(R)File 73:EMBASE
(c) 2000 Elsevier Science B.V. All rts. reserv.

04512037 EMBASE No: 1991006079
Characterization of a thyroid-specific enhancer located 5.5 kilobase pairs upstream of the human thyroid peroxidase gene
Kikkawa F.; Gonzalez F.J.; Kimura S.
Lab. Molecular Carcinogenesis, National Cancer Institute,Bethesda, MD 20892 United States
Molecular and Cellular Biology (MOL. CELL. BIOL.) (United States) 1990
, 10/12 (6216-6224)
CODEN: MCEBD ISSN: 0270-7306
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

A 6.3-kbp segment of DNA, upstream of the human thyroid peroxidase gene,
and various deletions thereof were linked to a promoterless bacterial chloramphenicol acetyltransferase reporter gene. These constructs were analyzed by transfection and expression in rat FRTL-5 thyroid cells and in human hepatoma HepG2 cells to localize sequences that are important for thyroid cell-specific expression of the thyroid peroxidase gene. A thyroid-specific enhancer element, capable of activating enhancerless simian virus 40 promoter expression in FRTL-5 cells, was localized to a 230-bp region approximately 5.5 kbp upstream of the human thyroid peroxidase gene transcription start site. DNase I footprinting, using nuclear extracts prepared from FRTL-5 cells, revealed three regions within the 230-bp fragment; none of these regions were protected by nuclear extracts from HepG2 cells. Gel mobility shift assays, using double-stranded oligonucleotides corresponding to the three protected regions, further confirmed the existence of factors in FRTL-5 cells, but not HepG2 cells, able to specifically bind to the enhancer sequences. These results suggest the presence of three cis-acting DNA elements in the human thyroid peroxidase gene enhancer that interact with thyroid-specific trans-acting factors.

9/3,AB/32 (Item 23 from file: 73)
DIALOG(R)File 73:EMBASE
(c) 2000 Elsevier Science B.V. All rts. reserv.

04262346 EMBASE No: 1990144889
Two silencers regulate the tissue-specific expression of the collagen II gene
Savagner P.; Miyashita T.; Yamada Y.
Laboratory of Developmental Biology and Anomalies, National Institute of Dental Research, National Institutes of Health, Bethesda, MD 20892 United States
Journal of Biological Chemistry (J. BIOL. CHEM.) (United States) 1990
, 265/12 (6669-6674)
CODEN: JBCHA ISSN: 0021-9258
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Collagen II, the major component of cartilage, is synthesized primarily by chondrocytes and by certain cells in the eye. Previously, we have studied the regulatory regions of the collagen II gene by %%%DNA%%% %%%transfection%%% assays. These studies show that both the promoter and an
%%%enhancer%%% sequence in the first intron are required for high transcriptional activity in chondrocytes. These elements do not show significant activity in cells which do not synthesize collagen II, such as in muscle cells and fibroblasts. In this report, we have constructed plasmids containing various deletions of the promoter of the collagen II gene, fused to a reporter gene for chloramphenicol acetyltransferase (CAT) and transfected them into both chick embryonic fibroblasts and HeLa cells. We have found that silencer elements in the collagen II promoter region reduce CAT activity 11-fold in fibroblasts, while not affecting the enhancer-mediated transcription in chondrocytes. Deletions in the promoter showed that most of the silencing activity was localized in two sites, between -360 and -460 base pairs and between -620 and -700 base pairs. Furthermore, a fragment containing these two sequences in a thymidine kinase promoter CAT construct reduced the activity of the promoter in an orientation independent fashion. Sequence analysis revealed that the two silencer regions are homologous and contain consensus motifs for silencer elements found in other genes. Gel retardation experiments showed that nuclear factors from HeLa cells bind specifically to a DNA fragment containing the silencer, whereas chondrocyte nuclear extracts did not show any activity. Thus, our study indicates that the expression of the collagen II gene is controlled by both negative and positive elements to ensure that the gene is only expressed in suitable cells.

9/3,AB/33 (Item 24 from file: 73)
DIALOG(R)File 73:EMBASE

04200735 EMBASE No: 1990083277
Immunoglobulin heavy-chain enhancer is required to maintain transfected gamma2A gene expression in a pre-B-cell line
Porton B.; Zaller D.M.; Lieberson R.; Eckhardt L.A.
Department Biological Sciences, Columbia University,New York, NY 10021
United States
Molecular and Cellular Biology (MOL. CELL. BIOL.) (United States) 1990
, 10/3 (1076-1083)
CODEN: MCEBD ISSN: 0270-7306
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

The immunoglobulin heavy-chain (IgH) enhancer serves to activate efficient and accurate transcription of cloned IgH genes when introduced into B lymphomas or myelomas. The role of this enhancer after gene activation, however, is unclear. The endogenous IgH genes in several cell lines, for example, have lost the IgH enhancer by deletion and yet continue to be expressed. This might be explained if the role of the enhancer were to establish high level gene transcription but not to maintain it. Alternatively, other enhancers might lie adjacent to endogenous IgH genes, substituting their activity for that of the lost IgH enhancer. To address both of these alternatives, we searched for enhancer activity within the flanking regions of one of these IgH enhancer-independent genes and designed an experiment that allowed us to consider separately the establishment and maintenance of expression of a transfected gene. For the latter experiment we generated numerous pre-B cell lines stably transformed with a gamma2a gene. In this gene, the IgH enhancer lay at a site outside the heavy-chain transcription unit, between D(H) and J(H) gene segments. After expression of the transfected gene was established, selective conditions were chosen for the outgrowth of subclones that had undergone D-J joining and thus IgH enhancer deletion. Measurements of gamma2a expression before and after enhancer deletion revealed that the enhancer was required for maintenance of expression of the transfected gene. The implication of this finding for models of enhancer function in endogenous genes is discussed.

9/3,AB/34 (Item 25 from file: 73)
DIALOG(R)File 73:EMBASE

03956706 EMBASE No: 1989125699
Cooperative interactions between the GRP78 enhancer and promoter elements
in hamster fibroblasts
Kim Y.K.; Lee A.S.
Department of Biochemistry, University of Southern California School of Medicine, Los Angeles, CA 90033 United States
Gene (GENE) (Netherlands) 1989, 77/1 (123-131)
CODEN: GENED ISSN: 0378-1119
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

A non-tissue-specific enhancer derived from the promoter of the rat 78-kDa glucose-regulated protein (GRP78)-coding gene was tested for its ability to stimulate the activity of its homologous promoter and two heterologous promoters (simian virus 40 and mouse mammary tumor virus). Single and double copies of the enhancer were inserted at positions 5' and 3' of the cat-expression vectors under the direction of the above promoters. The recombinant plasmids were transfected into hamster fibroblast K12 cells and assayed for chloramphenicol acetyl transferase activity under induced and non-induced conditions. We report that the GRP78 enhancer (i) exhibits strong cooperative interactions with its homologous promoter; (ii) can activate and confer a calcium ionophore (A23187) inducibility to heterologous promoters in an orientation-independent manner; (iii) prefers the 5' over the 3' location and; (iv) is dosage dependent in that two copies are twice as active as a single unit.

9/3,AB/35 (Item 26 from file: 73)
DIALOG(R)File 73:EMBASE

03893604 EMBASE No: 1989062560
Estrogen-responsive element of the human pS2 gene is an imperfectly palindromic sequence
Berry M.; Nunez A.-M.; Chambon P.
Laboratoire de Genetique Moleculaire des Eucaryotes du Centre National de la Recherche Scientifique, Faculte de Medecine, 67085 Strasbourg Cedex France
Proceedings of the National Academy of Sciences of the United States of America (PROC. NATL. ACAD. SCI. U. S. A.) (United States) 1989, 86/4
(1218-1222)
CODEN: PNASA ISSN: 0027-8424
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Using chimeric recombinants transfected into HeLa cells and a transient expression assay, we demonstrate that the 5'-flanking region of the pS2 gene from position -428 to position -324 exhibits both constitutive and estrogen-inducible enhancer activity. The estrogen-inducible activity, but not the constitutive activity, was inhibited by antiestrogens. ICI 164,384 behaved as a pure antagonist, whereas hydroxy-tamoxifen was a partial agonist-antagonist. The estrogen-responsive element of the pS2 gene has been narrowed down by site-directed deletion mutagenesis to a 13-base-pair (position -405 to position -393) imperfectly palindromic sequence, which in solution can confer estrogen inducibility to the heterologous rabbit beta-globin gene promoter. On the other hand, the sequences responsible for the constitutive enhancer activity are spread over the entire region.

9/3,AB/36 (Item 27 from file: 73)
DIALOG(R)File 73:EMBASE

03855848 EMBASE No: 1989024803
Anatomy of a new B-cell-specific enhancer
Koch W.; Benoist C.; Mathis D.
Laboratoire de Genetique Moleculaire des Eucaryotes, Centre National de la Recherche Scientifique, Institut Chimie Biologique, Faculte de Medecine, Strasbourg France
Molecular and Cellular Biology (MOL. CELL. BIOL.) (United States) 1989
, 9/1 (303-311)
CODEN: MCEBD ISSN: 0270-7306
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

9/3,AB/37 (Item 28 from file: 73)
DIALOG(R)File 73:EMBASE

03743069 EMBASE No: 1988192505
Functional cloning of mouse chromosomal loci specifically active in embryonal carcinoma stem cells
Bhat K.; McBurney M.W.; Hamada H.
Faculty of Medicine, Memorial University, St. John's, Nfld. A1B 3V6 Canada
Molecular and Cellular Biology (MOL. CELL. BIOL.) (United States) 1988
, 8/8 (3257-3259)
CODEN: MCEBD ISSN: 0270-7306
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

9/3,AB/38 (Item 29 from file: 73)
DIALOG(R)File 73:EMBASE

03445522 EMBASE No: 1987198099
Cell type specific expression of pre S 1 antigen and secretion of hepatitis B virus surface antigen. Brief report
Marquardt O.; Heermann K.-H.; Seifer M.; Gerlich W.H.
Max-Planck-Institute of Biochemistry, Martinsried Germany
Archives of Virology (ARCH. VIROL.) (Austria) 1987, 96/3-4 (249-256)
CODEN: ARVID
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

Production of the three hepatitis B surface (HGs) proteins was studied in a hepatoma cell line (PLC/PRF/5) and two HBs antigen secreting cell lines (HeLa and mouse L-cells), which had been transfected by a viral genome isolated by molecular cloning from PLC/PRF/5 chromosomal %%%DNA%%%. The
%%%DNA%%% used for %%%transfection%%% contains the HBs-specific promoters
and the %%%enhancer%%% with regulate the expression of HBs genes in the
transfected cell lines. All three cell lines expressed well the small and middle HBs protein, but the larger pre S 1 containing protein was barely detectable in the L-cell. In vivo growth of the transfected HeLa cell as nude mouse tumour increased pre S 1 expression and suppressed secretion of HBsAg.

9/3,AB/39 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
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06224214 85215555
Differential activation of RNA polymerase III-transcribed genes by the polyomavirus enhancer and the adenovirus E1A gene products.
Berger SL; Folk WR
Nucleic Acids Res (ENGLAND) Feb 25 %%%1985%%%, 13 (4) p1413-28, ISSN
0305-1048 Journal Code: O8L
Contract/Grant No.: GM30863, GM, NIGMS; CA13978, CA, NCI; T32 GM07315, GM
, NIGMS
Languages: ENGLISH
Document type: JOURNAL ARTICLE
We have compared the effect of the polyomavirus cis-acting transcriptional enhancer and the adenovirus trans-acting E1A gene on expression of RNA polymerase III-transcribed genes (the adenovirus VAI gene
and a bacterial tRNA gene) using %%%DNA%%% %%%transfection%%% and transient
expression assays. The polyomavirus %%%enhancer%%% has little effect upon
transcription of the VAI gene by RNA polymerase III in any cell type tested (murine, hamster, or human). In contrast, expression of the E1A gene within adenovirus infected cells stimulates transcription of RNA polymerase III-transcribed genes from co-transfected DNAs. Human 293 cells, which constitutively produce adenovirus E1A gene products, also express high levels of RNA polymerase III transcripts from transfected DNAs.

9/3,AB/40 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2000 Dialog Corporation. All rts. reserv.

06082210 86041926
A novel expression selection approach allows precise mapping of the hepatitis B virus enhancer.
Tognoni A; Cattaneo R; Serfling E; Schaffner W
Nucleic Acids Res (ENGLAND) Oct 25 %%%1985%%%, 13 (20) p7457-72,
ISSN 0305-1048 Journal Code: O8L
Languages: ENGLISH
Document type: JOURNAL ARTICLE
We have used a novel approach called expression selection to precisely define the hepatitis B virus (HBV) enhancer. Expression selection is based on a shuttle vector containing an enhancerless SV40 T antigen gene, the SV40 origin of replication and a plasmid replicon. This vector is linearized, ligated with the sonicated %%%DNA%%% to be analyzed and
%%%transfected%%% into eukaryotic cells, where only plasmids which have
incorporated an %%%enhancer%%% can express T antigen and therefore
replicate. Vectors amplified by replication are selectively rescued in E. coli and their inserts analyzed. When we performed this protocol with HBV DNA we rescued two overlapping fragments of 166 and 214 bp which in HBV DNA
map about 500 bp upstream of the core antigen mRNA initiation site and 1150
bp downstream of the surface antigen mRNA initiation site. These results were confirmed by conventional deletion mapping. When compared to the SV40
enhancer in nonhepatic cell lines, the HBV enhancer is only 5 to 10% as active; nevertheless, it also acts in an orientation-independent manner and in a position downstream of a gene. The HBV enhancer is situated in the coding region of the potential reverse transcriptase, and thus is the first enhancer identified to map in a protein-coding region.

9/3,AB/41 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2000 Dialog Corporation. All rts. reserv.

04968821 87024380
[Localization of transcription regulatory sequences. Application to the genes of the prolactin family]
Localisation des sequences regulatrices de la transcription. Application aux genes de la famille de la prolactine.
Belayew A; Bellefroid E; Berwaer M; Dumoulin M; Lambert C; Lemaitre-Wathy
C; Mathy-Hartert M; Morin A; Pasleau F; Scippo ML; et al
Ann Endocrinol (Paris) (FRANCE) %%%1986%%%, 47 (1) p7-10, ISSN
0003-4266 Journal Code: 54O
Languages: FRENCH Summary Languages: ENGLISH
Document type: JOURNAL ARTICLE English Abstract
We are studying nucleotide sequences responsible for the regulation of eukaryotic gene expression. Our test system comprises the human genes coding for prolactin (hPRL), growth hormone (hGH-N) and placental lactogen
(hCS-B). We have cloned these genes and are searching within their sequences for in vitro binding sites of the human glucocorticoid receptor on the hGH-N and hCS-B genes; the in vivo activity of such %%%DNA%%%
sequences by assaying hybrid gene expression in %%%transfected%%% cells;
in vivo "%%%enhancer%%%" activity of different hPRL gene fragments linked
to a marker gene and transfected in cultured cells.

9/3,AB/42 (Item 4 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2000 Dialog Corporation. All rts. reserv.

04866367 85176972
Transcription cell type specificity is conferred by an immunoglobulin VH gene promoter that includes a functional consensus sequence.
Mason JO; Williams GT; Neuberger MS
Cell (UNITED STATES) Jun %%%1985%%%, 41 (2) p479-87, ISSN 0092-8674
Journal Code: CQ4
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Immunoglobulin heavy chain gene transcription was studied using %%%DNA%%%
%%%transfection%%%. The %%%enhancer%%% element identified in the mouse
heavy chain locus was active in pre-B and plasmacytoma cell lines, but no activity was detected in two T cell lymphomas. However, even in the absence of the enhancer, cell type specificity of immunoglobulin gene transcription was still retained. We have used gene fusions to show that transcription cell type specificity is conferred by a VH gene promoter. Deletion analysis of this VH promoter indicates that a conserved octamer found 5' of the TATA box in immunoglobulin V genes is a functional part of the tissue-specific promoter upstream element.

9/3,AB/43 (Item 1 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs
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0078479 DBA Accession No.: 88-09328
Interferon production under the control of heterologous enhancers and promoters - construction of interferon expression plasmids with inducible enhancers
AUTHOR: Asano M; Nagashima H; Iwakura Y; Kawade Y
CORPORATE SOURCE: The Institute of Medical Science, The University

of
Tokyo, Minato-ku, Tokyo 108, Japan.
JOURNAL: Microbiol.Immunol. (32, 6, 589-96) %%%1988%%%
CODEN: MIIMDV
LANGUAGE: English
ABSTRACT: Interferon (IFN) production was artificially induced in animal cells transfected with various plasmids. Plasmid pMK-Mu-beta was constructed by inserting mouse IFN-beta cDNA into plasmid pMK, in which
IFN-beta cDNA was under the control of mouse MT-I enhancer promoter.
Mouse IFN-beta genomic DNA was ligated downstream to Drosophila heat
shock protein (HSP) enhancer-promoter to give plasmid pHS-Mu-beta.
Plasmid pSV40-Mu-beta and plasmid pSVX-Mu-beta were constructed with
mouse IFN-beta gene under the control of the constituitive SV40 early-promoter-enhancer and Moloney murine leukemia virus (Mo-MuLV)
long terminal repeat, respectively. IFN activity in BHK cells transfected with pSVX-Mu-beta increased dose-dependently from 0.04 ug pSVX-Mu-beta %%%DNA%%% to 5 ug %%%DNA%%%. In cells %%%transfected%%%
with pMK-Mu-beta, when the MT-I %%%enhancer%%% -promoter was not
activated by Cd2+, the basal level of IFN production was 0-21 U/ml. After induction by 10 uM Cd2+, 5-50 times more IFN was produced. When
the incubation temp. of BHK cells transfected with pHS-Mu-beta was shifted from 37 deg to 41 deg, IFN production incresed from less than 1 U/ml to 2,400 U/ml. (20 ref)
? s bupivacaine or mepivacaine or lidocaine or benzoic(w)acid

23906 BUPIVACAINE
5227 MEPIVACAINE
56307 LIDOCAINE
19013 BENZOIC
2911190 ACID
17883 BENZOIC(W)ACID
S10 94473 BUPIVACAINE OR MEPIVACAINE OR LIDOCAINE OR BENZOIC(W)ACID
? ds

Set Items Description
S1 1673077 DNA OR PLASMID OR POLYNUCLEOTIDE OR (NUCLEIC(W)ACID)
S2 41973 ENHANCER
S3 987869 UPTAKE OR PENETRAT? OR TRANSFECT? OR VACCIN?
S4 28774 S1(5W)S3
S5 81 S4(5W)S2
S6 38968 S1(10W)S3
S7 131 S6(10W)S2
S8 101 RD (unique items)
S9 43 S8 AND PY<=1993
S10 94473 BUPIVACAINE OR MEPIVACAINE OR LIDOCAINE OR BENZOIC(W)ACID
? s s10 and s1

94473 S10
1673077 S1
S11 1236 S10 AND S1
? s s10(10w)s1

94473 S10
1673077 S1
S12 274 S10(10W)S1
? s s10(5w)s1

94473 S10
1673077 S1
S13 188 S10(5W)S1
? s s13 and py<=1993

Processing
188 S13
22710852 PY<=1993
S14 113 S13 AND PY<=1993
? rd

...examined 50 records (50)
...examined 50 records (100)
...completed examining records
S15 102 RD (unique items)
? t s15/3,ab/1-102

15/3,AB/1 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
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08996274 BIOSIS NO.: 199497004644
Improved gene transfer by direct plasmid injection associated with regeneration in mouse skeletal muscle.
AUTHOR: Wells Dominic J
AUTHOR ADDRESS: Dep. Vet. Basic Sci., Royal Vet. Coll., Royal College St.,
London NW1 OTU**UK
JOURNAL: FEBS (Federation of European Biochemical Societies) Letters 332 (
1-2):p179-182 1993
ISSN: 0014-5793
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Gene transfer into skeletal muscle via simple plasmid injection in vivo has many potential uses but these are severely constrained by the low efficiency of this technique. Muscle regeneration, induced by the myotoxic local anaesthetic %%%bupivacaine%%%, significantly increased gene expression following %%%plasmid%%% injection 3-7 days after bupivacaine treatment. Much of this effect can be attributed to uptake and expression of the plasmid by a greater number of muscle fibres, up to 9% of the mouse tibialis anterior muscle. A similar significant increase in expression was observed in the naturally regenerating muscle of the dystrophic mdx mouse when compared to the control C57B1/10 strain.

15/3,AB/2 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
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07614062 BIOSIS NO.: 000091131946
ROLE OF THE BENZOYLOXYL RADICAL IN DNA DAMAGE MEDIATED BY BENZOYL PEROXIDE
AUTHOR: SWAUGER J E; DOLAN P M; ZWEIER J L; KUPPUSAMY P; KENSLER T W
AUTHOR ADDRESS: DEP. ENVIRONMENTAL HEALTH SCIENCES, JOHNS HOPKINS SCHOOL
HYGIENE PUBLIC HEALTH, 615 N. WOLFE ST., BALTIMORE, MD. 21205.
JOURNAL: CHEM RES TOXICOL 4 (2). 1991. 223-228.
FULL JOURNAL NAME: Chemical Research in Toxicology
CODEN: CRTOE
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: Benzoyl peroxide (BzPO) is both a tumor promoter and progressor
in mouse skin; however, BzPO is neither an initiator nor a complete carcinogen in this tissue. Although not mutagenic, BzPO has been observed to produce strand breaks in DNA of exposed cells. These actions are presumed to be mediated by free-radical derivatives of BzPO. Previous studies suggested that the metabolism of BzPO in keratinocytes proceeds via the initial cleavage of the peroxide bond, yielding benzoyloxy radicals which, in turn, can either fragment to form phenyl radicals and carbon dioxide or abstract H atoms from biomolecules to yield benzoic acid. Benzoic acid is the major stable metabolite of BzPO produced by kerationocytes. In the present study we have investigated the role of BzPO and its metabolites in the generation of strand scissions in a cell-free system, using .PHI. X-174 plasmid DNA. In this system BzPO produced DNA damage that was dose-dependent over a concentration range of
01-1 mM and required the presence of copper but not other transition metals. By contrast, %%%benzoic%%% %%%acid%%% did not produce

%%%DNA%%%
damage in this system, either in the presence or in the absence of copper. The inclusion of spin trapping agents, such as N-tert-butyl-.alpha.-phenylnitrone (PBN), 3,5-dibromo-4-nitrosobenzenesulfonate, and nitrosobenzene, in incubations was found to significantly reduce the extent of DNA damage generated via the copper-mediated activation of BzPO. Electron paramagnetic resonance spectroscopy studies suggested that the primary radical trapped by PBN following copper-mediated decomposition of BzPO was the benzoyloxy radical. By contrast, formation of either phenyl radicals or carbon dioxide was not detected in this system. Compounds that serve as faccile H donors, such as glutathine and ergothioneine, were also effective inhibitors of BzPO-mediated DNA strand breakage. BzPO does not appear to readily undergo addition reactios with DNA in that no covalent binding of BzPO to DNA was produced in incubations of radiolabeled BzPO, calf thymus DNA, and Cu+. Collectively, these observations suggest BzPO may be activated to DNA-damaging intermediates via copper-catalyzed cleavage of the peroxide bond, resulting in the formation of the benzoloxyl radical which may then produce labile sites in DNA through H-abstraction reactions.

15/3,AB/3 (Item 3 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

06762322 BIOSIS NO.: 000088071755
GLUCOSE UTILIZATION BY ENZYMATICALLY-FORMED TROPHOBLASTIC VESICLES AND DAY-14 PORCINE BLASTOCYSTS
AUTHOR: SELGRATH J P; FLOOD M R; WRIGHT R W JR
AUTHOR ADDRESS: DEP. ANIM. SCI., WASH. STATE UNIV., PULLMAN, WASH. 99164-6332.
JOURNAL: THERIOGENOLOGY 32 (1). 1989. 37-44.
FULL JOURNAL NAME: Theriogenology
CODEN: THGNB
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: The total glucose metabolism of 48-h spherical trophoblastic vesicles, Day-60 trophoblastic vesicles sections and Day-14 porcine blastocyst sections was measured by the method of O'Fallon and Wright (1). Trophoblastic vesicles were formed by enzyme dispersal in Day-14 porcine blastocysts. Glucose was based on DNA content of the tissue measured by diamino %%%benzoic%%% %%%acid%%% reaction with %%%DNA%%% (2). Slope of the lines (PMoles glucose utilized/4 h x DNA content) was different between Day-14 blastocyst sections and 48 h trophoblastic vesicles (P .ltoreq. 0.062) and between Day-14 blastocyst sections and Day-60 trophoblastic vesicles sections (P .gtoreq. 0.05). Slopes of the lines were identical between 48-h trophoblastic vesicles and Day-60 trophoblastic vesicles sections (P .gtoreq. 0.87). Average glucose utilization on a per ng DNA basis was calculated. Day-14 blastocyst sections ultilized 0.67 Pmoles glucose/4 h per ng DNA, Day-60 trophoblastic vesicles sections; 0.57; and 48-h sperical trophoblastic vesicles used 0.29. It is hypothesized that the change in glucose utilization between the Day-14 porcine blastocyst and enzymatically formed trophoblastic vesicles may be due to a decrease in metabolism as a consequence of in vitro culture. Further, it is theorized that Day-60 trophoblastic vesicles sections used higher quantities of glucose than 48-h sperical trophoblastic vesicles on a per ng DNA basis due to the increased availability of glucose to the cells of the inner layers, caused by the sectioning of the tissue. The results of this study identify changes in glucose metabolism of enzymatically formed porcine trophoblastic vesicles during culture. It is proposed that enzymatically-formed trophoblastic vesicles be used as a model system for the study of embryo metabolism.

15/3,AB/4 (Item 4 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

06716365 BIOSIS NO.: 000088025791
CLONING AND SEQUENCING OF TWO TANDEM GENES INVOLVED IN DEGRADATION OF 2 3 DIHYDROXYBIPHENYL TO BENZOIC ACID IN THE POLYCHLORINATED BIPHENYL-DEGRADING SOIL BACTERIUM PSEUDOMONAS-SP STRAIN KKS102
AUTHOR: KIMBARA K; HASHIMOTO T; FUKUDA M; KOANA T; TAKAGI M; OISHI M; YANO K
AUTHOR ADDRESS: DEP. AGRIC. CHEM., UNIV. TOKYO, BUNKYO-KU, TOKYO 113, JAPAN.
JOURNAL: J BACTERIOL 171 (5). 1989. 2740-2747.
FULL JOURNAL NAME: Journal of Bacteriology
CODEN: JOBAA
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: Two genes involved in the degradation of biphenyl were isolated from a gene library of a polychlorinated biphenyl-degrading soil bacterium, Pseudomonas sp. strain KKS102, by using a broad-host-range cosmid vector, pKS13. When a 3.2-kilobase (kb) PstI fragment of a 29-kb cosmid DNA insert was subcloned into pUC18 at the PstI site downstream of the lacZ promoter, Escherichia coli cells carrying this recombinant plasmid expressed 2,3-dihydroxybiphenyl dioxygenase activity. Nucleotide sequencing of the 3.2-kb PstI fragment revealed that there were two open reading frames (ORFI [882 base pairs] and ORFII [834 base pairs], in this gene order). Results of analysis of Tn5 insertion mutants and unidirectional deletion mutants suggested that the ORFI coded for 2,3-dihydroxybiphenyl dioxygenase. When the sequence of ORFI was compared with that of bphC of Pseudomonas pseudoalcaligenes KF707 (K. Furukawa, N. Arima, and T. Miyazaki, J. Bacteriol. 169:427-429, 1987), the homology was 68%, with both strains having the same Shine-Dalgarno sequence. The result of gas chromatography-mass spectrometry analysis of the metabolic product suggested that the ORFII had meta cleavage compound hydrolase activity to produce %%%benzoic%%% %%%acid%%%. %%%DNA%%% sequencing suggested that these two genes were contained in one operon.

15/3,AB/5 (Item 5 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

05397631 BIOSIS NO.: 000032120760
PHARMACOLOGIC WEAKENING OF THE LATERAL PTERYGOID MUSCLE AND CONDYLAR CARTILAGE GROWTH
AUTHOR: HINTON R J
AUTHOR ADDRESS: BAYLOR COLL. DENT., DALLAS, TEX.
JOURNAL: 65TH GENERAL SESSION OF THE INTERNATIONAL ASSOCIATION FOR DENTAL RESEARCH AND THE ANNUAL SESSION OF THE AMERICAN ASSOCIATION FOR DENTAL RESEARCH, CHICAGO, ILLINOIS, USA, MARCH 11-15, 1987. J DENT RES 66 (SPEC. ISSUE MAR.). 1987. 267.
CODEN: JDREA
DOCUMENT TYPE: Meeting
RECORD TYPE: Citation
LANGUAGE: ENGLISH

15/3,AB/6 (Item 6 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

05220355 BIOSIS NO.: 000082060977
STUDIES ON ANTIBACTERIAL EFFECTS OF LOCAL ANESTHETICS II. INVESTIGATIONS OF THE MECHANISM OF ANTIBACTERIAL EFFECT OF MEPIVACAINE
AUTHOR: HIRAOKA H
AUTHOR ADDRESS: DEP. OBSTET. GYNECOL., HIROSHIMA UNIV. SCH. MED.
JOURNAL: MED J HIROSHIMA UNIV 33 (5). 1985 (RECD. 1986).

939-946.
FULL JOURNAL NAME: Medical Journal of Hiroshima University
CODEN: HDIZA
RECORD TYPE: Abstract
LANGUAGE: JAPANESE

ABSTRACT: The present study was conducted with the use of Escherichia coli
(E. coli) NIHJ0126 and mepivacaine in vitro in order to elucidate the mechanism of antibacterial effect of amide-type local anesthetic on micro-organism. Study was made on viability of E. coli after treatment with mepivacaine and on the effect of %%%mepivacaine%%% on %%%DNA%%%,
RNA, and protein synthesis in E. coli. Morphological changes of E. coli in mepivacaine were examined by electron microscopy. In this study the following results were obtained. 1. The number of viable E. coli showed a remarkable decrease by contact with 2.0% mepivacaine, but following removal of mepivacaine, the growth curve after an initial lag period of 1-3.5 hr showed a growth phase. The longer was the contact time of E. coli with mepivacaine, the longer was the lag period and the slower was the growth of E. coli in the growth phase. 2. Uptake of 14C labeled thymidine, uridine and leucine into E. coli was remarkably inhibited by 2.0% and 0.5% mepivacaine. The effect of mepivacaine on E. coli was the greatest against RNA synthesis followed by protein synthesis and DNA synthesis in the order given. 3. In the electron microscopic observation of the morphological changes of E. coli affected by mepivacaine, E. coli in 2.0% mepivacaine showed some vacuole formation in the cytoplasm in 30 min of contact and in 90 min severe plasmolysis and vacuole formation were seen. The cells of E. coli became shorter and rounder.

15/3,AB/7 (Item 7 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

04351626 BIOSIS NO.: 000078081170
FLUOROMETRIC DETERMINATION OF DNA IN CARTILAGE OF VARIOUS SPECIES
AUTHOR: OEGEMA T R JR; CARPENTER B J; THOMPSON R C JR
AUTHOR ADDRESS: DEP. ORTHOPAEDIC SURGERY, BOX 310 MAYO BUILD., UNIV.
MINNESOTA, MINNEAPOLIS, MINNESOTA 55455.
JOURNAL: J ORTHOP RES 1 (4). 1984. 345-351.
FULL JOURNAL NAME: Journal of Orthopaedic Research
CODEN: JORED
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: A sensitive, modified 3,5-diaminobenzoic acid (DABA), fluorometric DNA assay was developed and compared to mithramycin and ethidium bromide assays in determining the DNA content of dense connective tissues including: Swarm rat chondrosarcoma, rabbit, dog, monkey and, most importantly, adult human articular cartilage. In the more cellular cartilages, the 3 methods gave equivalent results. In the relatively acellular human cartilage, the DABA method was shown to be superior. Both the mithramycin and ethidium bromide gave falsely high values compared to the DABA method, which by subtraction after DNase digestion approached the DABA value. The latter was completely DNase sensitive. With the DABA method, the DNA content of human cartilage can be obtained on < 5 mg wet weight of fresh, alcohol-fixed, or lyophilized material. While the DNA can also be released by digestion with papain or protease from Streptomyces griseus, proteinase K was preferable. The comparison of literature values for other fluorometric and spectrophotometric assays of human cartilage suggest these methods overestimate human articular cartilage DNA concentrations, whereas the DABA values were in line with those predicted from previous morphometric analysis. The modified method represents an improvement in DNA analysis of dense connective tissues.

15/3,AB/8 (Item 8 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

04241018 BIOSIS NO.: 000077067063
INHIBITORY EFFECT OF MEMBRANE BINDING DRUGS ON EXCISION REPAIR OF DNA
DAMAGE IN UV IRRADIATED ESCHERICHIA-COLI
AUTHOR: TODO T; YONEI S
AUTHOR ADDRESS: LAB. RADIAT. BIOL., FAC. SCI., KYOTO UNIV., KITASHIRAKAWA,
KYOTO 606, JPN.
JOURNAL: MUTAT RES 112 (2). 1983. 97-108.
FULL JOURNAL NAME: Mutation Research
CODEN: MUREA
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: The effects of procaine and %%%lidocaine%%% on %%%DNA%%%-repair
processes were investigated in UV-irradiated cells of E. coli with different DNA-repair capacities. The cells were irradiated with various doses of UV and then icubated at 37.degree. C in M9 buffer (liquid-holding) or in EM9 medium in the presence or absence of membrane-binding drugs. In strains H/r30 (wild-type for DNA repair) and NG30 (recA-), the increase in survival with increase in time of liquid-holding was almost completely inhibited by the addition of procaine and lidocaine. The same trends were observable under conditions of post-irradiation incubation in EM9 medium, more efficiently in recA- strain than in the wild-type strain. The addition of these drugs gave an apparent enhancement of the frequency of UV-induced mutation to arginine prototrophy, corresponding to a decrease in survival. There were negligible effects of the drugs on survival and mutation in the excision-repair-defective strain, Hs30 (uvrB-). The removal of thymine dimers from DNA was actually reduced by the addition of procaine. Apparently, procaine and lidocaine inhibited excision-repair process in UV-irradiated E. coli cells. Procaine and lidocaine are typical local anesthetics and known to interact with cell membranes causing alterations in the structural and functional organization. A disorganization of the membrane structure brought about by the drugs may result in an inhibition of excision repair of DNA damage in E. coli, assuming that at least a component of excision repair is associated with the cell membrane. Possible mechanisms involved in this process are discussed.

15/3,AB/9 (Item 9 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

04092574 BIOSIS NO.: 000027002126
GROWTH INHIBITORY ANALOGS OF THE GLYCINE HISTIDINE LYSINE COPPER II COMPLEX
AUTHOR: PICKART L; GOODWIN W H; MURPHY T B; JOHNSON D K
AUTHOR ADDRESS: VIRGINIA MASON RESEARCH CENT., SEATTLE, WASH. 98101.
JOURNAL: 11TH ANNUAL UCLA (UNIVERSTY OF CALIFORNIA-LOS ANGELES) SYMPOSIUM
ON EVOLUTION OF HORMONE-RECEPTOR SYSTEMS, SQUAW VALLEY, CALIF., USA, MAR.
14-20, 1982. J CELL BIOCHEM SUPPL 0 (6). 1982. 172.
CODEN: JCBSD
DOCUMENT TYPE: Meeting
RECORD TYPE: Citation
LANGUAGE: ENGLISH

15/3,AB/10 (Item 10 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

03911275 BIOSIS NO.: 000075089348
MECHANISM OF ESOPHAGEAL TUMOR INDUCTION IN RATS BY N NITROSOMETHYL
BENZYLAMINE AND ITS RING METHYLATED ANALOG N NITROSOMETHYL-4-METHYL
BENZYLAMINE
AUTHOR: HODGSON R M; SCHWEINSBERG F; WIESSLER M; KLEIHUES P
AUTHOR ADDRESS: PATHOL. INST., ALBERTSTRASSE 19, 78 FREIBURG, W. GERMANY.
JOURNAL: CANCER RES 42 (7). 1982. 2836-2840.
FULL JOURNAL NAME: Cancer Research
CODEN: CNREA
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: The metabolism of the esophageal carcinogen N-nitroso-methylbenzylamine (MBN) and its ring-methylated analog N-nitrosomethyl(4-methylbenzyl)amine (4-MeMBN) was investigated in male Wistar rats. When given in the drinking water, both compounds were shown to induce a high incidence of esophageal carcinomas but, after systemic administration of equimolar doses, 4-MeMBN is considerably less toxic and carcinogenic than is MBN. Following a single i.v. injection, 4-MeMBN disappeared from serum faster than did MBN. After 5 h, neither compound was detectable in serum. Within 12 h after a single i.v. injection (0.017 mmol/kg) of [methyl-14C]MBN, 49% of the radioactivity was exhaled as 14CO2, and less than 5% was in the urine, compared with only 13% as 14CO2 and 65% in the urine after an equimolar dose of 4-Me[methyl-14C]MBN. The urinary metabolite of 4-MeMBN was identified as its %%%benzoic%%% %%%acid%%% derivative. Methylation of %%%DNA%%% purines 4 h after a single i.v. injection (0.017 mmol/kg) of [methyl-14C]MBN was highest in the esophagus (344 .mu.mol 7-methylguanine/mol guanine), followed by liver, lung and forestomach. Considerbly less DNA methylation was produced by an equimolar dose of 4-MeMBN, with highest values in liver, followed by esophagus (22 .mu.mol 7-methylguanine/mol guanine) and lung. S.c. injections of equitoxic doses of MBN (18 mg/kg) and 4-MeMBN (394 mg/kg) produced similar amounts of 7-methylguanine in esophageal nucleic acids. The lower toxicity and carcinogenicity of 4-MeMBN after systemic administration may be due to the rapid formation (mainly in the liver) and excretion via the urine of its benzoic acid derivative. The strong carcinogenic effect of orally administered 4-MeMBN can be explained by direct uptake from the drinking water into the esophageal mucosa. Following a single i.v. injection (0.017 mmol/kg) of [methylene-14C]MBN and 4-Me[methylene-14C]MBN, no benzylated bases were detectable in rat tissues. The bioactivation of these compounds may be initiated predominantly by hydroxylation at the methylene bridge leading to a methylating rather than a benzylating intermediate as the ultimate carcinogen.

15/3,AB/11 (Item 11 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

03863406 BIOSIS NO.: 000075041479
THE GENETIC ACTIVITY OF P AMINO %%%BENZOIC%%%-%%%ACID%%% AMPLIFICATION OF %%%DNA%%% POLYMERASE I DEPENDENT REPAIR INDUCED BY CHEMICAL MUTAGENS IN PERMEABILIZED BACTERIA
AUTHOR: VASIL'EVA S V; TONKAL' T E; GORODETSKII S I; RAPOPORT I A
AUTHOR ADDRESS: INST. CHEM. PHYS., ACAD. SCI. USSR, MOSCOW, USSR.
JOURNAL: GENETIKA 18 (3). 1982. 392-398.
FULL JOURNAL NAME: Genetika
CODEN: GNKAA
RECORD TYPE: Abstract
LANGUAGE: RUSSIAN

ABSTRACT: Alkylation of Escherichia coli DNA in bacteria that had been made permeable to nucleotides by toluene treatment results in the expression of DNA polymerase I-directed repair synthesis. The system only permits measurement of DNA polymerase I-directed repair synthesis. The latter is not observed in mutant cells deficient in this polymerase. DNA ligation is intentionally prevented by the addition of the inhibitor, NMN. MNU (methyl nitrosourea), ENU (ethyl nitrosourea) and MMS (methyl methanesulfonate) elicit DNA polymerase I-directed repair synthesis. MNU and MMS are especially potent in this regard, while EMS (ethyl methanesulfonate) is a poor inducer of DNA polymerase I activity in permeabilized cells. The natural compound p-aminobenzoic acid (PABA) itself (0.0002 mM.sbd.20 mM) does not induce DNA polymerase I-directed repair synthesis. When PABA is used in complex with alkylating agents as the inducers, the repair synthesis increased 2.0, 1.2 and 2.8 times for MNU, ENU and EMS, respectively, as compared to that elicited by pure mutagens. The increase of DNA repair synthesis in permeabilized bacteria may explain the reparagenic activity of PABA.

15/3,AB/12 (Item 12 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

03813615 BIOSIS NO.: 000025066688
EFFECT OF P AMINO %%%BENZOIC%%%-%%%ACID%%% AND AMINO BENZHYDRAZIDE ON %%%DNA%%% REPAIR
AUTHOR: IVANOV S D; KULIKOV S V
AUTHOR ADDRESS: ALL-UNION RESEARCH INSTITUTE OF SPECIALLY PURE BIOLOGICAL PRODUCTS, LENINGRAD.
JOURNAL: BULL EXP BIOL MED (ENGL TRANSL BYULL EKSP BIOL MED) 93 (4). 1982. 427-429.
FULL JOURNAL NAME: Bulletin of Experimental Biology and Medicine (English Translation of Byulleten' Eksperimental'noi Biologii i Meditsiny)
CODEN: BEXBA
RECORD TYPE: Citation
LANGUAGE: ENGLISH

15/3,AB/13 (Item 13 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

03767526 BIOSIS NO.: 000025020599
GENETIC ACTIVITY OF P AMINO %%%BENZOIC%%%-%%%ACID%%% INTENSIFICATION OF THE %%%DNA%%% POLYMERASE I DEPENDENT REPAIR INDUCED BY CHEMICAL MUTAGENS IN TOLUENE TREATED CELLS OF ESCHERICHIA-COLI
AUTHOR: VASIL'EVA S V; TONKAL' T E; GORODETSKII S I; RAPOPORT I A
AUTHOR ADDRESS: INSTITUTE CHEMICAL PHYSICS, ACADEMY SCIENCES USSR, MOSCOW.
JOURNAL: SOV GENET (ENGL TRANSL GENETIKA) 18 (3). 1982 (RECD. 1983). 282-288.
FULL JOURNAL NAME: Soviet Genetics (English Translation of Genetika)
CODEN: SOGEB
RECORD TYPE: Citation
LANGUAGE: ENGLISH

15/3,AB/14 (Item 14 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

03767525 BIOSIS NO.: 000025020598
INTENSIFICATION BY P AMINO %%%BENZOIC%%%-%%%ACID%%% OF %%%DNA%%% REPAIR PROCESSES IN ESCHERICHIA-COLI K-12
AUTHOR: VASIL'EVA S V; DAVNICHENKO L S; RAPOPORT I A
AUTHOR ADDRESS: INSTITUTE CHEMICAL PHYSICS, ACADEMY SCIENCES USSR, MOSCOW.
JOURNAL: SOV GENET (ENGL TRANSL GENETIKA) 18 (3). 1982 (RECD. 1983). 273-281.
FULL JOURNAL NAME: Soviet Genetics (English Translation of Genetika)
CODEN: SOGEB
RECORD TYPE: Citation
LANGUAGE: ENGLISH

15/3,AB/15 (Item 15 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

03750681 BIOSIS NO.: 000025003754
EFFECTS OF INHIBITORS OF PLANT CELL DIVISION ON GROWTH AND ULTRASTRUCTURE OF CULTURED MAMMARY TUMOR CELLS
AUTHOR: SAFA A R; BALLOU R J; TSENG M T
AUTHOR ADDRESS: DEP. ANAT., UNIV. LOUISVILLE, LOUISVILLE, KENTUCKY 40292.
JOURNAL: 67TH ANNUAL MEETING OF THE FEDERATION OF

AMERICAN SOCIETIES FOR
EXPERIMENTAL BIOLOGY, CHICAGO, ILL., USA, APRIL 10-15, 1983.
FED PROC 42
(3). 1983. ABSTRACT 1306.
CODEN: FEPRA
DOCUMENT TYPE: Meeting
RECORD TYPE: Citation
LANGUAGE: ENGLISH

15/3,AB/16 (Item 16 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

03242206 BIOSIS NO.: 000071055317
A POSSIBLE MECHANISM OF ACTION OF ASULAM INVOLVING FOLIC-ACID BIOSYNTHESIS
AUTHOR: STEPHEN N H; COOK G T; DUNCAN H J
AUTHOR ADDRESS: AGRIC. CHEM. SECT., UNIV. GLASGOW, GLASGOW G12 8QQ.
JOURNAL: ANN APPL BIOL 96 (2). 1980. 227-234.
FULL JOURNAL NAME: Annals of Applied Biology
CODEN: AABIA
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: A range of plant species was sown in beakers containing vermiculite and treated with solutions of asulam. This resulted principally in stunting of the root system [wheat, barley, pea, French bean], which could be reversed by the simultaneous addition of either p-aminobenzoic acid or folic acid. Compounds related to p-aminobenzoic acid had no such activity. A possible mechanism of action of asulam is the inhibition of folic acid synthesis resulting in impairment of biological methylations, and hence inhibition of protein and nucleic acid synthesis.

15/3,AB/17 (Item 17 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

03115165 BIOSIS NO.: 000020058284
INTERACTION OF P AMINO %%%BENZOIC%%%-%%%ACID%%% WITH %%%DNA%%% IN-VIVO
AUTHOR: VASIL'EVA S V; ZHIZHINA G P; RAPOPORT I A
AUTHOR ADDRESS: INST. CHEM. PHYSICS, ACAD. SCI. USSR, MOSCOW.
JOURNAL: DOKL BIOCHEM (ENGL TRANSL DOKL AKAD NAUK SSSR SER BIOKHIM) 252
(1-6). 1980. 182-184.
FULL JOURNAL NAME: Doklady Biochemistry (English Translation of Doklady
Akademii Nauk Sssr Seriya Biokhimiya)
CODEN: DBIOA
RECORD TYPE: Citation
LANGUAGE: ENGLISH

15/3,AB/18 (Item 18 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

02987892 BIOSIS NO.: 000070013510
LOCAL ANESTHETICS AND WOUND HEALING
AUTHOR: CHVAPIL M; HAMEROFF S R; O'DEA K; PEACOCK E E JR
AUTHOR ADDRESS: DEP. SURG., UNIV. ARIZ. HEALTH SCI. CENT., TUCSON, ARIZ.
85724, USA.
JOURNAL: J SURG RES 27 (6). 1979 (RECD. 1980). 367-371.
FULL JOURNAL NAME: Journal of Surgical Research
CODEN: JSGRA
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: The effects of local anesthetics, lidocaine and bupivacaine, were
tested in tissue cultures of 3T3 [embryonic Swiss albino mouse] and WI-38 [embryonic human female lung] fibroblasts, in slices of newborn rat skin and in vivo in granuloma tissue induced by s.c. implantation of stainless steel cylinder in rats. The effects on the synthesis or amounts of DNA, collagen, glycosaminoglycans (GAG), noncollagenous proteins, and the activity of prolyl hydroxylase were studied. Irrespective of the biological system used, both anesthetics inhibit the synthesis of collagen to a greater extent than noncollagenous proteins. The synthesis of GAG was inhibited but the synthesis and amount of DNA were unaffected.
Local anesthetics apparently inhibit wound healing by inhibiting the synthesis of major structural macromolecules, collagen and GAG.

15/3,AB/19 (Item 19 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

02804997 BIOSIS NO.: 000018038116
THE EFFECT OF LOCAL ANESTHETICS ON THE METABOLISM AND MEMBRANE OF
LYMPHOCYTES
AUTHOR: BOJTA J; ANTONI F; TEMESI A
AUTHOR ADDRESS: FIRST DEP. MED. CHEM., SEMMELWEIS UNIV. MED. SCH.,
BUDAPEST, HUNG.
JOURNAL: 2ND JOINT CONGRESS OF THE HUNGARIAN SOCIETIES OF BIOCHEMISTRY,
BIOPHYSICS AND PHYSIOLOGY, PECS, HUNGARY, JUNE 30-JULY 2, 1977. ACTA
PHYSIOL ACAD SCI HUNG 54 (2-3). 1978 (RECD. 1979). 202-203.
CODEN: APACA
DOCUMENT TYPE: Meeting
RECORD TYPE: Citation
LANGUAGE: ENGLISH

15/3,AB/20 (Item 20 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

02657339 BIOSIS NO.: 000067045404
FLUOROMETRIC ASSAYS IN THE STUDY OF NUCLEIC-ACID PROTEIN INTERACTIONS PART
1 THE USE OF DI AMINO %%%BENZOIC%%%-%%%ACID%%% AS A REAGENT OF %%%DNA%%%
AUTHOR: PESTANA A; CASTRO R; CASTELL J V; MARCO R
AUTHOR ADDRESS: FAC. MED., CSIC, INST. ENZIMOL., UNIV. AUTON., MADRID-34,
SPAIN.
JOURNAL: ANAL BIOCHEM 90 (2). 1978. 543-550.
FULL JOURNAL NAME: Analytical Biochemistry
CODEN: ANBCA
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: The microfluorometric determination of DNA with diaminobenzoic
acid in combination with a filter binding assay offers an easy and accurate procedure to study the interaction of proteins with any source of DNA. Using a highly polymerized commercial preparation of calf thymus DNA, the binding curve of histones or protamines changes from hyperbolic to increasingly sigmoidal depending on the length and temperature of incubation. The presence of the DNA preparation of small amounts of contaminating proteases, undetectable by conventional methods, is responsible for this change in the binding curve, since the presence of phenylmethylsulfonylfluoride in the reaction mixture or the removal of the proteases from the DNA produces only hyperbolic curves.

15/3,AB/21 (Item 21 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

02555207 BIOSIS NO.: 000017003264
BIOCHEMICAL ANALYSIS OF THE RESPONSE OF MAMMALIAN CELLS TO UV LIGHT AND
SUNSCREEN AGENTS
AUTHOR: LONG S D; LITTLE J B
JOURNAL: FED PROC 38 (3 PART 1). 1979 846

FULL JOURNAL NAME: Federation Proceedings
CODEN: FEPRA
DOCUMENT TYPE: Meeting
RECORD TYPE: Citation

15/3,AB/22 (Item 22 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
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01579733 BIOSIS NO.: 000011079722
%%%BENZOIC%%%-%%%ACID%%% TRANSFER OF THE %%%PLASMID%%%
AUTHOR: NAKAZAWA M; OYA M
JOURNAL: JPN J BACTERIOL 30 (1). 1975 192
FULL JOURNAL NAME: Japanese Journal of Bacteriology
CODEN: NSKZA
DOCUMENT TYPE: Meeting
RECORD TYPE: Citation

15/3,AB/23 (Item 23 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
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00975511 BIOSIS NO.: 000054025711
GENETIC TRANSFORMATION IN METHYLOCOCCUS-CAPSULATUS
AUTHOR: WILLIAMS E; BAINBRIDGE B W
JOURNAL: J APPL BACTERIOL 34 (4). 1971 683-687.
FULL JOURNAL NAME: Journal of Applied Bacteriology
CODEN: JABAA
RECORD TYPE: Citation

15/3,AB/24 (Item 24 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 2000 BIOSIS. All rts. reserv.

00750300 BIOSIS NO.: 000052110388
BIOCHEMICAL MECHANISMS INVOLVED IN THE SENSITIZATION OF LIVING ORGANISMS BY
CHEMICAL AGENTS TO THE EFFECT OF RADIATIONS AND CYTOSTATIC DRUGS PART I
THE EFFECT OF THE IRRADIATION OF RATS INJECTED WITH PARA HYDROXY MERCURI
%%%BENZOIC%%% %%%ACID%%% ON THE CHROMATOGRAPHIC PROFILE OF %%%DNA%%%
AUTHOR: FURNICA M; SPIRIDON M; GANEA A
JOURNAL: REV ROUM BIOCHIM 7 (4). 1970 265-273.
FULL JOURNAL NAME: Revue Roumaine de Biochimie
CODEN: RRBCA
RECORD TYPE: Citation

15/3,AB/25 (Item 1 from file: 73)
DIALOG(R)File 73:EMBASE
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05522834 EMBASE No: 1993290933
Copper ion-mediated modification of bases in DNA in vitro by benzoyl peroxide
Akman S.A.; Kensler T.W.; Doroshow J.H.; Dizdaroglu M.
Department of Medical Oncology, City of Hope National Medical Center,Duarte, CA 91010 United States
Carcinogenesis (CARCINOGENESIS) (United Kingdom) 1993, 14/9 (1971-1974)
CODEN: CRNGD ISSN: 0143-3334
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

The mouse skin tumor promoter benzoyl peroxide (BzPO), in conjunction with Cu(I), causes promutagenic damage in DNA. Because free radical intermediates are produced by the reaction of BzPO with Cu(I), we sought to determine whether BzPO plus Cu(I) caused DNA base damage typical of that caused by the hydroxyl radical. A broad range of modified DNA bases were measured by GC-MS with selected-ion monitoring after exposure of purified plasmid pCMVbetagal DNA to BzPO +/- Cu(I). Exposure to BzPO/Cu(I) caused up to 20-fold increases in the levels of adenine-derived modified bases, up to 4-fold increases in guanine- and cytosine-derived modified bases, and only a < 2-fold increase in thymine-derived modified bases. The guanine-derived modified base 8-hydroxyguanine was elevated to the highest net amount, ~160
molecules/10sup 5 DNA bases. Exposure to BzPO alone or Cu(I) alone induced
only minor (< <2-fold) DNA base modification. Also, benzoic acid, the major non-radical metabolite of BzPO, or BzPO plus Fe(II) were ineffective at inducing DNA base modification. The hydroxyl radical scavenger dimethyl sulfoxide inhibited BzPO/Cu(I) induced base modification by 10-50%. These data suggest that the reaction of BzPO with Cu(I) generates hydroxyl radical or a similarly reactive intermediate which causes DNA base damage. This damage may be responsible for BzPO/Cua)mediated mutagenesis.

15/3,AB/26 (Item 2 from file: 73)
DIALOG(R)File 73:EMBASE
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05509345 EMBASE No: 1993277444
Regulation of the pcaIJ genes for aromatic acid degradation in Pseudomonas putida
Parales R.E.; Harwood C.S.
Department of Microbiology, Biocatalysis/Bioprocessing Center, University of Iowa,Iowa City, IA 52242 United States
Journal of Bacteriology (J. BACTERIOL.) (United States) 1993, 175/18 (5829-5838)
CODEN: JOBAA ISSN: 0021-9193
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Six of the genes encoding enzymes of the beta-ketoadipate pathway for benzoate and 4-hydroxybenzoate degradation in Pseudomonas putida are organized into at least three separate transcriptional units. As an initial step to defining this pca regulon at the molecular level, lacZ fusions were made with the pcaI and pcaJ genes, which encode the two subunits of beta-ketoadipate:succinyl-coenzyme A transferase, the enzyme catalyzing the next- to-last step in the beta-ketoadipate pathway. Fusion analyses showed that pcaI and pcaJ constitute an operon which requires beta-ketoadipate or its nonmetabolizable analog, adipate, as well as the pcaR regulatory gene for induction. The pcaIJ promoter is likely to be a sigmasup 7sup 0-type promoter; it has a sigmasup 7sup 0-type consensus sequence and did not require the alternative sigma factor, RpoN, for induction. Deletion analysis of the promoter region of a pcaI-lacZ transcriptional fusion indicated that no specific DNA sequences upstream of the -35 region were required for full induction. This implies that the binding site for the activator protein, PcaR, is unusually close to the transcriptional start site of pcaIJ.

15/3,AB/27 (Item 3 from file: 73)
DIALOG(R)File 73:EMBASE
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05502022 EMBASE No: 1993270121
Effect of tribenoside-%%%lidocaine%%% ointment (BG-356 ointment) on %%%DNA%%% synthesis in the rectal mucosa of rats
Tsukimi Y.; Okabe S.
Department of Applied Pharmacology, Kyoto Pharmaceutical University,Kyoto
Japan
Therapeutic Research (THER. RES.) (Japan) 1993, 14/6 (465-470)
CODEN: THREE ISSN: 0289-8020
DOCUMENT TYPE: Journal; Conference Paper
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

15/3,AB/28 (Item 4 from file: 73)
DIALOG(R)File 73:EMBASE
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05498979 EMBASE No: 1993267078
Variation in chlorobenzoate catabolism by Pseudomonas putida P111 as a consequence of genetic alterations
Brenner V.; Hernandez B.S.; Focht D.D.
Dept. of Soil/Environmental Sciences, University of California,Riverside, CA 92521 United States

Applied and Environmental Microbiology (APPL. ENVIRON. MICROBIOL.) (
United States) 1993, 59/9 (2790-2794)
CODEN: AEMID ISSN: 0099-2240
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Pseudomonas putida P111 is able to utilize a broad range of monochlorinated, dichlorinated, and trichlorinated benzoates. The involvement of two separate dioxygenases was noted from data on plasmid profiles and DNA hybridization. The benzoate dioxygenase, which converts 3-chlorobenzoate (3- CB), 4-CB, and benzoate to the corresponding catechols via reduction of a dihydrodiol, was shown to be chromosomally coded. The chlorobenzoate-1,2- dioxygenase that converts ortho-chlorobenzoates to the corresponding catechols without the need of a functional dioldehydrogenase was shown to be encoded on plasmid pPB111 (75 kb). Cured strains were unable to utilize ortho-chlorobenzoates for growth. DNA hybridization data indicated that catabolism of the corresponding chlorocatechols was coded on chromosomal genes. Maintenance of plasmid pPB111 was dependent on the presence of ortho- chlorobenzoates in the growth media. A unique variant of P111 (P111D), able to grow on 3,5-dichlorobenzoate (3,5-DCB), was obtained
by continuous subculturing from media containing progressively lower and higher concentrations of 3-CB and 3,5-DCB, respectively. The low frequency of segregants able to grow on 2,5-DCB, 2,3-DCB, and 2,3,5-trichlorobenzoate
was evident by lag periods greater than 200 h. Continued subculture on 3,5-DCB resulted in the formation of new plasmid pPH111 (120 kb), which was
homologous to pPB111. A probe from the clc operon, which encodes for the chlorocatechol pathway, hybridized to plasmid pPH111 and to the chromosome
of the wild-type strain P111 but not to its plasmid pPB111 nor to the chromosome of strain P111A, which had lost the ability to utilize chlorobenzoates. These data indicate that the clc operon, which is located in the chromosome of wild-type strain P111, is excised in variant P111A and translocated into plasmid pPH111 of variant P111D.

15/3,AB/29 (Item 5 from file: 73)
DIALOG(R)File 73:EMBASE
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05443058 EMBASE No: 1993211157
X-ray and primary structure of horse serum albumin (Equus caballus) at 0.27-nm resolution
Ho J.X.; Holowachuk E.W.; Norton E.J.; Twigg P.D.; Carter D.C.
ES76 Biophysics, NASA, Marshall Space Flight Center,Huntsville, AL 35812
United States
European Journal of Biochemistry (EUR. J. BIOCHEM.) (Germany) 1993,
215/1 (205-212)
CODEN: EJBCA ISSN: 0014-2956
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

The amino-acid sequence and three-dimensional structure of equine serum albumin have been determined. The amino-acid sequence was deduced from cDNA
isolated from equine liver. Comparisons of the primary structure of equine serum albumin with human serum albumin and bovine serum albumin reveal 76.1% and 73.9% sequence identity, respectively. The three-dimensional structure was determined crystallographically by the molecular-replacement method using molecular coordinates from the previously determined structure of human serum albumin, to a resolution of 0.27 nm. In accordance with the primary structure, the three-dimensional structures are highly conserved. There is a root-mean-square difference between alpha-carbons of the two structures of 0.201 nm. The association constants (Ka) for the binding of 2,3,5-triiodobenzoic acid were determined by ultrafiltration methods for equine and human serum albumins to be approximately 10sup 4Msup -sup 1 and
10sup 5Msup -sup 1, respectively. Crystallographic studies of equine serum albumin reveal two binding sites for 2,3,5-triiodobenzoic acid identical with those previously reported for human serum albumin which are located within subdomains IIA and IIIA. Details and comparisons of the binding chemistry are discussed.

15/3,AB/30 (Item 6 from file: 73)
DIALOG(R)File 73:EMBASE
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05412026 EMBASE No: 1993180125
Antioxidant and pro-oxidant activities of p-hydroxybenzyl alcohol and vanillin: Effects of free radicals, brain peroxidation and degradation of benzoate, deoxyribose, amino acids and DNA
Liu J.; Mori A.
Department of Neuroscience, Inst. of Molecular/Cellular Medicine, Okayama
University Medical School, 2-5-1 Shikatacho,Okayama 700 Japan
Neuropharmacology (NEUROPHARMACOLOGY) (United Kingdom) 1993, 32/7
(659-669)
CODEN: NEPHB ISSN: 0028-3908
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

We examined the antioxidant and pro-oxidant activities of p-hydroxybenzyl alcohol (p-HBA), the major component of Gastrodia elata Bl. (GE), and compared them with those of vanillin, which is also a component of GE and a known antioxidant. Both p-HBA and vanillin are powerful scavengers of 1,1-diphenyl-2-picryl hydrazyl, superoxide and hydroxyl radicals. Like vanillin, p-HBA also inhibits iron-dependent lipid peroxidation in rat brain homogenate, microsomes and mitochondria. In addition, p-HBA and vanillin in a dose-dependent fashion inhibit Fe(II)-Hinf 2Oinf 2-induced damage to benzoate, deoxyribose, glutamic acid, 2-aminobutyric acid and methionine, as well as benzoate hydroxylation. Vanillin has a pro-oxidant effect on Fe(III)-superoxide-induced damage to benzoate, deoxyribose, amino acids and benzoate hydroxylation, whereas p-HBA shows no pro-oxidant activity in the system. Vanillin and p-HBA stimulate
bleomycin-iron-dependent damage to DNA only at very high concentrations. These findings suggest that the antioxidant effect of GE extract in the rat brain may result from the antioxidant actions of p-HBA and other phenolic compounds such as vanillin at the cellular and molecular level in brain.

15/3,AB/31 (Item 7 from file: 73)
DIALOG(R)File 73:EMBASE
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05196199 EMBASE No: 1992336433
Characterization and purification of human retinoic acid receptor-gamma1 overexpressed in the baculovirus-insect cell system
Reddy A.P.; Chen J.-Y.; Zacharewski T.; Gronemeyer H.; Voorhees J.J.; Fisher G.J.
Department of Dermatology, University Michigan Medical School,Ann Arbor,
MI 48109 United States
Biochemical Journal (BIOCHEM. J.) (United Kingdom) 1992, 287/3 (833-840)
CODEN: BIJOA ISSN: 0264-6021
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

The full-length cDNA for the human retinoic acid receptor-gamma1 (RAR-gamma1) has been expressed to high levels in Spodoptera frugiferda (Sf9) cells using the baculovirus expression system. Western blot analysis revealed that RAR-gamma1 expression increased between 32 and 60 h post-infection. The recombinant receptor was expressed primarily as a nuclear protein and displayed a molecular mass of 50 kDa as determined by SDS/PAGE and gel-filtration chromatography. consistent with its cDNA-deduced size. Based on ligand binding, 2 x 10sup 6 RAR-gamma1 molecules were expressed per Sf9 cell, a level approx. 2000 times greater than in mammalian cells. The receptor was partially purified 300-fold by sequential anion-exchange, gel-filtration and DNA affinity chromatographies. The overexpressed receptor specifically bound all-trans-retinoic acid (RA) and the synthetic retinoid CD367 with high affinity (K(d) 0.15 nM and 0.23 nM respectively). The RA metabolites 4-hydroxy-RA and 4-oxo-RA were poor competitors for (sup 3H)CD367 binding
to recombinant RAR-gamma1 (K(i) > 1 muM), indicating that 4-oxidation of RA
greatly reduces its affinity for RAR-gamma1. Gel-retardation analysis demonstrated that RAR-gamma1 specifically bound the RA response element of
the mouse RAR-beta gene. RAR-gamma1 species expressed from

recombinant
baculovirus (in Sf9 cells) and vaccinia virus (in HeLa cells) exhibited similar affinities for RA and CD367 and had comparable DNA-binding properties in gel-retardation experiments. Moreover, a similar requirement for additional DNA-binding stimulatory factor(s) was observed in both cases. These results provide a basis for the use of baculovirus-expressed RAR-gamma1 in further functional and structural studies.

15/3,AB/32 (Item 8 from file: 73)
DIALOG(R)File 73:EMBASE

05100226 EMBASE No: 1992240442
Characterization of Pseudomonas putida mutants unable to catabolize benzoate: Cloning and characterization of Pseudomonas genes involved in benzoate catabolism and isolation of a chromosomal DNA fragment able to substitute for xylS in activation of the TOL lower-pathway promoter
Jeffrey W.H.; Cuskey S.M.; Chapman P.J.; Resnick S.; Olsen R.H.
CEDB, University of West Florida,Pensacola, FL 32514 United States
Journal of Bacteriology (J. BACTERIOL.) (United States) 1992, 174/15 (4986-4996)
CODEN: JOBAA ISSN: 0021-9193
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Mutants of Pseudomonas putida mt-2 that are unable to convert benzoate to catechol were isolated and grouped into two classes: those that did not initiate attack on benzoate and those that accumulated 3,5-cyclohexadiene-1,2-diol-1-carboxylic acid (benzoate diol). The latter mutants, represented by strain PP0201, were shown to lack benzoate diol dehydrogenase (benD) activity. Mutants from the former class were presumed either to carry lesions in one or more subunit structural genes of benzoate dioxygenase (benABC) or the regulatory gene (benR) or to contain multiple mutations. Previous work in this laboratory suggested that benR can substitute for the TOL plasmid- encoded xylS regulatory gene, which promotes gene expression
from the OP2 region of the lower or meta pathway operon. Accordingly, structural and regulatory gene mutations were distinguished by the ability of benzoate-grown mutant strains to induce expression from OP2 without xylS
by using the TOL plasmid xylE gene (encoding catechol 2,3-dioxygenase) as a
reporter. A cloned 12-kb BamHI chromosomal DNA fragment from the P. aeruginosa PAO1 chromosome complemented all of the mutations, as shown by
restoration of growth on benzoate minimal medium. Subcloning and deletion analyses allowed identification of DNA fragments carrying benD, benABC, and
the region possessing xylS substitution activity, benR. Expression of these genes was examined in a strain devoid of benzoate-utilizing ability, Pseudomonas fluorescens PFO15. The disappearance of benzoate and the production of catechol were determined by chromatographic analysis of supernatants from cultures grown with casamino acids. When P. fluorescens PFO15 was transformed with plasmids containing only benABCD, no loss of benzoate was observed. When either benR or xylS was cloned into plasmids compatible with those plasmids containing only the benABCD regions, benzoate was removed from the medium and catechol was produced. Regulation
of expression of the chromosomal structural genes by benR and xylS was quantified by benzoate diol dehydrogenase enzyme assays. The results obtained when xylS was substituted for benR strongly suggest an isofunctional regulatory mechanism between the TOL plasmid lower-pathway
genes (via the OP2 promoter) and chromosomal benABC. Southern hybridizations demonstrated that DNA encoding the benzoate dioxygenase structural genes showed homology to DNA encoding toluate dioxygenase from
the TOL plasmid pWW0, but benR did not show homology to xylS. Evolutionary
relationships between the regulatory systems of chromosomal and plasmid-encoded genes for the catabolism of benzoate and related compounds are suggested.

15/3,AB/33 (Item 9 from file: 73)
DIALOG(R)File 73:EMBASE

03268007 EMBASE No: 1986065584
The effects of retinoid treatment and antiestrogens on the growth of T47D human breast cancer cells
Wetherall N.T.; Taylor C.M.
Department of Pathology, Vanderbilt University Medical Center, Nashville, TN 37232 United States
European Journal of Cancer and Clinical Oncology (EUR. J. CANCER CLIN.
ONCOL.) (United Kingdom) 1986, 22/1 (53-59)
CODEN: EJCAA
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

The ability of all-trans-retinoic acid, 13-cis-retinoic acid, the free acid of etretinate (RO 10-1670), the 'arotinoid' RO 13-6298 and its free acid RO 13-7410 to affect the growth of T47D human breast cancer cells in vitro was investigated. The growth of T47D cells was inhibited by all of the retinoids tested, with the arotinoids being up to 100 times more effective than all-trans-retinoic acid. The presence of cellular retinoic acid binding protein (cRABP) was indicated by the cellular uptake of (sup 3H)all-trans-retinoic acid. Maximum binding was 460 fmol/mug DNA. All of the retinoids with a polar terminal free carboxyl group readily competed for the binding sites, but none of the retinoids competed for the estrogen or progesterone receptor. Co-treatment of the T47D cells with 0.1 muM all-trans-retinoic acid and either tamoxifen (1 muM) or hydroxytamoxifen (10 nM or 0.1 muM) produced an additive effect on growth inhibition. No such additive effect was observed when T47D cells were co-treated with arotinoids and antiestrogens. The results showed that the T47D cells can serve as a useful model in vitro to test the effects of the synthetic retinoids and antiestrogens on steroid receptor-positive human breast cancer.

15/3,AB/34 (Item 10 from file: 73)
DIALOG(R)File 73:EMBASE

03103171 EMBASE No: 1986215748
Degradation of DNA by metalloanthracyclines: Requirement for metal ions
Mariam Y.H.; Glover G.P.
Department of Chemistry, Atlanta University, Atlanta, GA 30314 United States
Biochemical and Biophysical Research Communications (BIOCHEM. BIOPHYS.
RES. COMMUN.) (United States) 1986, 136/1 (1-7)
CODEN: BBRCA
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

Metallodaunomycin has been shown to cleave DNA only in the presence of oxygen, a reducing agent and a metal ion under reaction conditions similar to those used for the cuprous-phenanthroline complex. The intermediacy of superoxide and Hinf 2Oinf 2 has been substantiated by experiments with superoxide dismutase and catalase, respectively. Only partial inhibition by OH radical scavengers was observed. An important feature of the reaction is that no specificity for Cu(II) was observed. This observation has led to propose a reaction mechanism different from that proposed for the cuprous-phenanthroline complex. The mechanism proprosed includes a catalytic role for metal ions other than Cu(II) as well as the direct participation of products of metal-catalyzed redox reactions such as semiquinone and /or hydroquinone of daunomycin.

15/3,AB/35 (Item 11 from file: 73)
DIALOG(R)File 73:EMBASE

02906267 EMBASE No: 1985100226
Catalase enhances damage to DNA by bleomycin-iron(II): The role of hydroxyl radicals
Gutteridge J.M.C.; Beard A.P.C.; Quinlan G.J.
Division of Antibiotics and Chemistry, National Institute for Biological Standards and Control, Holly Hill, Hampstead, London NW3 6RB United Kingdom
Biochemistry International (BIOCHEM. INT.) (Australia) 1985, 10/3 (441-449)
CODEN: BIIND
DOCUMENT TYPE: Journal

LANGUAGE: ENGLISH

15/3,AB/36 (Item 12 from file: 73)
DIALOG(R)File 73:EMBASE
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02608425 EMBASE No: 1984177383
Cloning of cDNAs specifying vitamin A-responsive human keratins
Eckert R.L.; Green H.
Department of Physiology and Biophysics, Harvard Medical School, Boston,
MA 02115 United States
Proceedings of the National Academy of Sciences of the United States of America (PROC. NATL. ACAD. SCI. U. S. A.) (United States) 1984, 81/14
I (4321-4325)
CODEN: PNASA
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

In human cultured epidermal and conjunctival keratinocytes, vitamin A promotes the synthesis of keratins 13 and 19 of the catalog of Moll et al. but does not alter the synthesis of keratins 5 and 6. To study this effect of the vitamin, cDNAs specifying each of these keratins were cloned in pBR322. Characterization of the clones by hybrid selection of mRNA and by hybridization of size-fractionated mRNA indicated that each was specific for a single mRNA. Treatment of epidermal cells with arotinoid Ro 13-6298, a potent synthetic analog of retinoic acid, increased the abundance of mRNA for keratin 13 by 25-fold and for keratin 19 by greater than 40-fold but had no effect on the abundance of mRNA for keratins 5 and 6.

15/3,AB/37 (Item 13 from file: 73)
DIALOG(R)File 73:EMBASE
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02578754 EMBASE No: 1984247609
Managing skin damage induced by doxorubicin hydrochloride and daunorubicin hydrochloride
Cox R.F.
Department of Pharmacy, Brockton Hospital, Brockton, MA 02402 United States
American Journal of Hospital Pharmacy (AM. J. HOSP. PHARM.) (United States) 1984, 41/11 (2410-2414)
CODEN: AJHPA
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

The pathophysiology and mechanisms of toxicity of anthracycline-induced skin damage are reviewed, and the various available therapeutic interventions are discussed. Skin ulcers caused by the vesicant antineoplastic agents doxorubicin hydrochloride and daunorubicin hydrochloride begin slowly, and the extent of the tissue damage produced is often underestimated. Within a week, untreated infiltrations of these agents can advance to serious indurations and ulcerations, causing extensive damage to underlying structures such as tendons and bones. Two theories have been proposed to explain the mechanism of action of anthracycline-induced tissue damage; one holds that doxorubicin-DNA complexes form causing cell death, and the other holds that these agents are reduced to free radicals that can cause cell-membrane damage. Nonpharmacologic treatment of extravasation consists of stopping the infusion at the first sign of a problem and attempting to aspirate fluid and drug back through the same needle. The application of ice packs for the next 24-72 hours is recommended. A variety of pharmacologic approaches have
been evaluated to ameliorate tissue damage. Corticosteroids, sodium bicarbonate, beta-adrenergic agents, and dimethyl sulfoxide have been used with some success. Patients who do not respond to initial conservative treatments should be referred to a plastic surgeon for skin grafting and reconstruction. The best treatment for anthracycline toxicity is prevention.

15/3,AB/38 (Item 14 from file: 73)
DIALOG(R)File 73:EMBASE
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02460907 EMBASE No: 1983113918
Inhibitory effect of membrane-binding drugs on excision repair of DNA damage in UV-irradiated Eschericia coli
Todo T.; Yonei S.
Lab. Radiat. Biol., Fac. Sci., Kyoto Univ., Kitashirakawa, Kyoto 606 Japan
Mutation Research (MUTAT. RES.) (Netherlands) 1983, 112/2 (97-107)
CODEN: MUREA
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

The effects of procaine and %%%lidocaine%%% on %%%DNA%%%-repair processes
were investigated in UV-irradiated cells of E. coli with different DNA-repair capacities. The cells were irradiated with various doses of UV and then incubated at 37degreeC in M9 buffer (liquid-holding) or in EM9 medium in the presence or absence of membrane-binding drugs. The results obtained are as follows. (1) In strains H/r30 (wild-type for DNA repair) and NG30 (recAsup -), the increase in survival with increase in time of liquid-holding was almost completely inhibited by the addition of procaine and lidocaine. The same trends were observable under conditions of post-irradiation incubation in EM9 medium, more efficiently in recAsup -strain than in the wild-type strain. (2) The addition of these drugs gave an apparent enhancement of the frequency of UV-induced mutation to arginine
prototrophy, corresponding to a decrease in survival. (3) There were negligible effects of the drugs on survival and mutation in the excision-repair-defective strain, Hs30 (uvrBsup -). (4) The removal of thymine dimers from DNA was actually reduced by the addition of procaine. From these results it is concluded that procaine and lidocaine inhibited excision-repair process in UV-irradiated E. coli cells. Procaine and lidocaine are typical local anesthetics and known to interact with cell membranes causing alterations in the structural and functional organization. Therefore, it is suggested that a disorganization of the membrane structure brought about by the drugs may result in an inhibition of excision repair of DNA damage in E. coli, assuming that at least a component of excision repair is associated with the cell membrane. Possible mechanisms involved in this process are discussed.

15/3,AB/39 (Item 15 from file: 73)
DIALOG(R)File 73:EMBASE
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01933295 EMBASE No: 1981112462
Pharmacological studies on the mutagenicity: I. Analgesics and anti-inflammaotry drugs and their derivatives
Tamura T.; Fujii A.; Kuboyama N.
Dept. Pharmacol., Nihon Univ. Sch. Dent. Matsudo, Chiba 271 Japan
Japanese Journal of Pharmacology (JPN. J. PHARMACOL.) (Japan) 1980,
30/SUPPL. (360)
CODEN: JJPAA
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

15/3,AB/40 (Item 16 from file: 73)
DIALOG(R)File 73:EMBASE
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01619571 EMBASE No: 1980177244
DNA and its precursors might interact with the food preservatives, sodium sulphite and sodium benzoate
Njagi G.D.E.; Gopalan H.N.B.
Dept. Bot., Kenyatta Univ. Coll., Nairobi Kenya
Experientia (EXPERIENTIA) (Switzerland) 1980, 36/4 (413-414)
CODEN: EXPEA
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

The interaction of sodium sulphite and sodium benzoate with nucleosides and DNA was studied in vitro. Reduction in UV-absorbance was consistently noticed. However, no new products result from such interaction. It is likely that our previous observations of the effects of the 2 food preservatives on DNA synthesis and mitotis in Vicia faba root meristems is not due to direct action of the chemicals at the level of genetic material.

15/3,AB/41 (Item 17 from file: 73)
DIALOG(R)File 73:EMBASE
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01003098 EMBASE No: 1978131425
Strand scission of DNA by bound adriamycin and daunorubicin in the presence of reducing agents
Lown J.W.; Sim S.K.; Majumdar K.C.; Chang R.Y.
Dept. Chem., Univ. Alberta, Edmonton Canada
Biochemical and Biophysical Research Communications (BIOCHEM. BIOPHYS. RES. COMMUN.) (United States) 1977, 76/3 (705-710)
CODEN: BBRCA
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

Adriamycin and daunorubicin bound to covalently closed circular DNA nick the latter when reduced by sodium borohydride as demonstrated using an ethidium bromide fluorescence assay. The degradation, dependent on oxygen, is strongly inhibited by (1) superoxide dismutase, (2) catalase and (3) sodium benzoate indicating the intermediacy in the cleavage of superoxide radical anion, hydrogen peroxide and hydroxyl radicals respectively. Less nicking of the DNA is observed by the reduced aglycones, so binding to the DNA by the aminosugar moiety assists the cleavage process. Adriamycin, daunorubicin and both ring C reduced forms bind intercalatively and completely relax supercoiled DNA. The results provide a possible rationale for the degradation of DNA which accompanies anthracycline administration.

15/3,AB/42 (Item 18 from file: 73)
DIALOG(R)File 73:EMBASE
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00809722 EMBASE No: 1977155234
The role of hydroxyl radicals in radiation induced single strand breaks of bacterial DNA sensitized by parachloromercuribenzoate
Ho S.K.; Ho Y.L.
Dept. Int. Med., Sch. Med., Loma Linda Univ., Loma Linda, Calif. 92354 United States
Radiation Research (RADIAT. RES.) 1976, 67/2 (277-285)
CODEN: RAREA
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

Escherichia coli 15Tsup - cells have been irradiated by gamma rays at 21degreeC at a dose rate of 1.3 krad/min in the presence and absence of parachloromercuribenzoate (PCMB) and the effects of hydroxyl radical scavengers on the yields of single strand DNA breaks under atmospheric and anoxic conditions (the latter achieved with the aid of sodium dithionite) studied. In the absence of PCMB, the amount of breaks, 1.9x10sup 1sup 4 breaks/g of DNA/krad, is little affected by the removal of OH radicals or oxygen, and represents the result of broken DNA that has largely been rejoined under the conditions employed. PCMB increases single strand breaks
under atmospheric and anoxic conditions by 18 and 7 fold, respectively. A significant amount of such breaks can be reduced by OH radical scavengers, and a study of the kinetics of scavenging under atmospheric conditions by four such scavengers shows that OH radicals are responsible for 79% of the breaks in PCMB treated cells. In the absence of PCMB, the cells are capable of repairing all the breaks produced by OH radicals as well as some by the direct effect. The sensitizing effect of PCMB is attributable to its inactivation of intracellular repair enzymes. Other plausible modes of action of PCMB are also discussed.

15/3,AB/43 (Item 19 from file: 73)
DIALOG(R)File 73:EMBASE
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00455658 EMBASE No: 1976011192
Oxygen uptake by Serratia marcescens
Fawole M.O.
Dept. Bot., Univ. Ibadan Nigeria
Zeitschrift fur Allgemeine Mikrobiologie (Z. ALLG. MIKROBIOL.) 1975,
15/1 (3-8)
CODEN: ZAPOA
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

15/3,AB/44 (Item 20 from file: 73)
DIALOG(R)File 73:EMBASE
(c) 2000 Elsevier Science B.V. All rts. reserv.

00159872 EMBASE No: 1974149994
Sodium paraaminosalicylate DNA interactions
Amalric F.; Nicoloso M.; Zalta J.P.
Cent. Rech. Biochim. Genet. Cell., Toulouse France
Biochimica et Biophysica Acta (BIOCHIM. BIOPHYS. ACTA) 1974, 335/1
(69-76)
CODEN: BBACA
DOCUMENT TYPE: Journal
LANGUAGE: ENGLISH

15/3,AB/45 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
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08242749 94135015
Antioxidant and pro-oxidant assay for a new drug GEPC: detected by ESR spectrometry and by protective effects on lipid peroxidation and biomolecule degradation.
Liu J; Mori A; Ogata K
Department of Neuroscience, Okayama University Medical School, Japan.
Res Commun Chem Pathol Pharmacol (UNITED STATES) Nov %%%1993%%%, 82
(2) p151-66, ISSN 0034-5164 Journal Code: R62
Languages: ENGLISH
Document type: JOURNAL ARTICLE
L-Ascorbic acid 2-(20 beta-11-oxo-olean-12-en-29-oic acid ethylester-3-beta-yl hydrogen phosphate) sodium salt (GEPC) is a newly synthesized compound representing a phosphate diester linkage of glycyrrhetic acid ethylester and ascorbic acid. In the present study, we found that GEPC effectively inhibited Fe(III)-ADP/NADPH-induced peroxidation of liver microsomes. The inhibitory effect was much greater than that of glycyrrhetic acid (GA), and contrasted with the stimulatory effect of ascorbic acid. An ESR study showed that GEPC appeared to have a
great loss of the DPPH and superoxide radical scavenging effects of ascorbic acid. However, GEPC, like ascorbic acid, inhibited hydroxyl radicals generation in both Fe(II)-H2 O2 and Cr(VI)-H2 O2 systems. GEPC,
unlike ascorbic acid, showed no pro-oxidant effect and acted as an effective iron-chelating agent in the ESR study or in the iron-induced deoxyribose and DNA degradation assays. The hydroxyl radical scavenging
effect of GEPC was further demonstrated by its protective effect on the hydroxyl radical- induced degradation of certain biomolecules, i.e., carbohydrates, amino acids, and DNA. These results demonstrate that beside its protective effect on ascorbic acid autoxidation and increasing water solubility of GA, GEPC is also an antioxidant though not so powerful as ascorbic acid but more powerful than GA.

15/3,AB/46 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2000 Dialog Corporation. All rts. reserv.

07839735 93347983
The application of the AMB protective group in the solid-phase synthesis of methylphosphonate DNA analogues.
Kuijpers WH; Kuyl-Yeheskiely E; van Boom JH; van Boeckel CA
Organon International BV, Leiden, The Netherlands.
Nucleic Acids Res (ENGLAND) Jul 25 %%%1993%%%, 21 (15) p3493-500,
ISSN 0305-1048 Journal Code: O8L
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Partially methylphosphonate-modified oligodeoxynucleotides were synthesized on solid-phase by employing the easily removable 2-(acetoxymethyl)benzoyl (AMB) group as base-protecting group. Although a
rapid AMB deprotection can be accomplished in methanolic potassium

carbonate, the lability of the methylphosphonate linkage towards potassium carbonate/methanol excludes the use of this deprotection reagent. Thus, saturated ammonia solution in methanol was investigated as an alternative reagent for AMB removal. It is demonstrated that the combination of the AMB
protective group and ammonia/methanol as deprotection reagent significantly improves the synthesis of methylphosphonate-modified DNA fragments. A mild
overnight treatment at room temperature is sufficient for complete removal of the AMB group, whereas deprotection of conventionally protected oligonucleotides requires much longer exposure to basic conditions at elevated temperatures.

15/3,AB/47 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07469511 92039174
Role of activated oxygen species in benzo[a]pyrene:DNA adduct formation in vitro.
Bryla P; Weyand EH
Department of Pharmaceutical Chemistry, Rutgers University, College of Pharmacy, Piscataway, NJ 08855-0789.
Free Radic Biol Med (UNITED STATES) %%%1991%%%, 11 (1) p17-24, ISSN
0891-5849 Journal Code: FRE
Contract/Grant No.: R29 CA49826, CA, NCI
Languages: ENGLISH
Document type: JOURNAL ARTICLE
The role of several activated oxygen species in the oxidation and binding of B[a]P to calf thymus DNA in vitro was investigated. B[a]P was reacted with calf thymus DNA in the presence and absence of scavengers of active oxygen species. Reactions were performed in the dark at 37 degrees C for 30 min in a buffered aqueous solution with 250 micrograms of calf thymus DNA.
The levels of B[a]P:DNA adducts formed were determined using the 32P-postlabeling assay. B[a]P:DNA adduct levels ranged from 1.5-2.6 and 0.25 pmol adducts/mg DNA in reactions with 120 or 12 nmol of B[a]P, respectively. The addition of scavengers of reactive oxygen species to reaction mixtures resulted in a considerable decrease in the levels of DNA adducts formed in comparison to control reactions. Reactions performed with 500 units catalase or 100 units superoxide dismutase significantly inhibited DNA adduct formation. In these reactions adduct levels were 32 and 48% of control levels, respectively. The addition of both catalase and superoxide dismutase to reactions inhibited adduct formation by 95% relative to control reactions. A decrease in adduct levels was also observed when reactions were performed with citrate-Fe3+ chelate, a scavenger of superoxide. In reactions with 50 mM mannitol and 50 mM sodium
benzoate, both of which are hydroxyl radical scavengers, adduct formation was significantly inhibited with adduct levels being 30 and 51% of control values, respectively. Adduct levels were decreased to 26% of control values in reactions with 10 mM 2,5-dimethylfuran, a scavenger of singlet oxygen.(ABSTRACT TRUNCATED AT 250 WORDS)

15/3,AB/48 (Item 4 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07464000 91190955
[Sensitized NADH formation of single-stranded breaks in plasmid DNA upon
the action of near UV-radiation]
Sensibilizirovannoe NADH obrazovanie odnonitevykh razryvov v plazmidnoi
DNK pri deistvii blizhnego UF-izlucheniia.
Burchuladze TG; Sideris EG; Fraikin Gla
Biofizika (USSR) Sep-Oct %%%1990%%%, 35 (5) p722-5, ISSN 0006-3029
Journal Code: A1S
Languages: RUSSIAN Summary Languages: ENGLISH
Document type: JOURNAL ARTICLE English Abstract
It has been shown that NADH photosensitize in vitro single-strand breaks formation in double-strand plasmid DNA pBR 322 upon near-UV (320-400 nm)
irradiation. The number of single-strand breaks depends both on UV light dose and sensitizer concentration. Addition of catalase and sodium benzoate strongly decreases the single-strand breaks formation. The results show an important role of hydrogen peroxide (H2O2) and hydroxyl radical (.OH) in inducing single-strand breaks in plasmid DNA irradiated by near-UV radiation in the presence of NADH.

15/3,AB/49 (Item 5 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07463637 91175106
Pseudoepidermis, constructed in vitro, for use in toxicological and pharmacological studies.
Scavarelli-Karantsavelos RM; Zaman Saroya S; Vaughan FL; Bernstein IA
Department of Environmental and Industrial Health, School of Public Health, University of Michigan, Ann Arbor.
Skin Pharmacol (SWITZERLAND) %%%1990%%%, 3 (2). p115-25, ISSN
1011-0283 Journal Code: AOA
Languages: ENGLISH
Document type: JOURNAL ARTICLE
The purpose of this study was to establish the validity of the stratified, cornified keratinocyte culture as a model for investigating cutaneous toxicities. This pseudoepidermis, grown on a nylon membrane at the air-liquid interface, responded to topical application of a known vesicant similarly to the response of the tissue in vivo. Alterations in the morphology of the in vitro model also resembled pathological changes seen in in vivo models after exposure to this agent. The effects of the skin irritants benzoate and salicylate on protein and DNA synthesis in the culture were also similar to those observed in vivo.

15/3,AB/50 (Item 6 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07323719 92236549
Structure of the gamma-less nicotinic acetylcholine receptor: learning from omission.
Charnet P; Labarca C; Lester HA
CNRS-CRBM, Montpellier, France.
Mol Pharmacol (UNITED STATES) Apr %%%1992%%%, 41 (4) p708-17, ISSN
0026-895X Journal Code: NGR
Contract/Grant No.: NS-11756, NS, NINDS
Languages: ENGLISH
Document type: JOURNAL ARTICLE
The nicotinic acetylcholine receptor can be expressed in Xenopus oocytes by injection of in vitro synthesized RNA for the alpha, beta, gamma, and delta mouse muscle subunits. However, detectable responses can also be obtained by injection of alpha, beta, and delta subunit RNA only. The receptors expressed in this case (gamma-less receptors) share many of the properties of the normal receptor, including relaxation time constants, Hill slope, and relative permeability for Na+, K+, Cs+, and Tris+. The major single-channel conductances of alpha beta gamma delta and alpha beta delta receptors are similar (34.2 +/- 2.9 and 38.5 +/- 0.6 pS, respectively) but clearly different from the major conductances seen after the combined injection of alpha beta delta mouse subunit RNA and Xenopus
gamma subunit RNA. Mutations in the second transmembrane segment of the
alpha and beta subunits, known to affect open time and blockade by QX-222,
are equally effective in the gamma-less receptor. These data strongly suggest that the gamma-less receptor has the same pore diameter as the normal receptor and that alpha, beta, and delta subunits participate in its formation. Injection of alpha beta gamma delta well as alpha beta delta RNA produced additional subconductance states of around 25 pS. The low conductance state was sensitive to mutations introduced in the alpha or beta subunits with or without the gamma subunit, indicating that this channel did not need the gamma subunits but required at least the alpha and beta subunits to be produced. Injection of alpha beta delta and the adult-type epsilon subunit RNA gave rise to channels with conductances of 35 and 55 pS when the stoichiometry of the injection was 2:1:1:1, but only the 55-pS channel was recorded when the epsilon subunit RNA concentration
was increased by 10-fold (stoichiometry of 2:1:1:10). The gamma-less

receptor can thus be expressed even when the adult epsilon subunit is present. Whether gamma-less receptors are expressed at normal adult neuromuscular junctions remains unknown.

15/3,AB/51 (Item 7 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07147918 92408249
Effect of capsaicin on gastric mucosal injury and blood flow following bile acid exposure.
Sullivan TR Jr; Milner R; Dempsey DT; Ritchie WP Jr
Department of Surgery, Temple University School of Medicine, Philadelphia, Pennsylvania 19140.
J Surg Res (UNITED STATES) Jun %%%1992%%%, 52 (6) p596-600, ISSN
0022-4804 Journal Code: K7B
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Topical bile acid at low pH stimulates gastric mucosal blood flow (GMBF), thereby limiting injury to surface epithelial cells (SEC). Capsaicin-sensitive afferent neurons (ASN) are possible mediators of the GMBF response and, therefore, of mucosal protection. In order to investigate the effect of topical capsaicin (ASN stimulant) and topical lidocaine (ASN inhibitor) on SEC exfoliation and GMBF, vascularized wedges
of canine gastric corpus were mounted in lucite chambers. Mucosae were pretreated for 15 min with saline (NSS), 160 microM capsaicin (CAP), 4% lidocaine (LIDO), or CAP and LIDO, followed by a 30-min exposure to acid
test solution (ATS; pH 1.2). The same mucosae were then pretreated in an identical fashion followed by a second 30-min exposure to 5 mM taurocholate (5 TC; pH 1.2). Parameters evaluated during both ATS and 5 TC periods were
the luminal accumulation of DNA (DNAE, a sensitive marker of SEC exfoliation) and GMBF measured using radiolabeled microspheres. It was found that, relative to NSS pretreatment, CAP pretreatment increased GMBF
and decreased DNAE during exposure to both ATS and 5 TC. LIDO blocked the
CAP effect on GMBF but not on DNAE. Thus, ASN stimulation by CAP enhances
GMBF and is protective. ANS inhibition blocks CAP's GMBF increase but not
its protective capabilities. Therefore, augmentation of GMBF is not the only mechanism by which ASNs blunt SEC exfoliation.

15/3,AB/52 (Item 8 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07133991 92381046
Coordinated expression of phosphorylase kinase subunits in regenerating skeletal muscle.
Cawley KC; Akita CG; Wineinger MA; Carlsen RC; Gorin FA; Walsh DA
Department of Biological Chemistry, School of Medicine, University of California, Davis 95616.
J Biol Chem (UNITED STATES) Aug 25 %%%1992%%%, 267 (24) p17287-95,
ISSN 0021-9258 Journal Code: HIV
Contract/Grant No.: DK 13613, DK, NIDDK
Languages: ENGLISH
Document type: JOURNAL ARTICLE
The developmental expression of the alpha, beta, and gamma subunits of skeletal muscle phosphorylase kinase has been examined in regenerating muscle. Rat extensor digitorum longus (EDL) muscles, treated with bupivacaine, promptly undergo a rapid degeneration of the muscle, followed by regeneration and recovery of essentially normal morphology and physiology by 3-4 weeks post-treatment (Hall-Craggs, E. C. B., and Seyan, H. S. (1975) Exp. Neurol. 46, 345-354). Phosphorylase kinase activity dropped to approximately 10% of control within 3 days of bupivacaine treatment and remained at this low level for several days but had attained at least 60% of normal levels by day 21. The pH 6.8/8.2 activity ratio was unusually high during the period of low activity, suggesting that the catalytic activity was not under normal regulation at this time. The subunit mRNAs were readily detected in control EDL but were undetectable at
day 3 post-bupivacaine treatment. Very small amounts of message for all three subunits were evident by day 6 and began to approach normal levels by day 12-15. The mRNA for both the alpha and alpha' subunits of phosphorylase
kinase exhibited a similar pattern of recovery, as did also the mRNA for phosphorylase. In contrast to both phosphorylase kinase and phosphorylase, actin mRNA exhibited a quite a different pattern, with a nearly full recovery of message levels by day 6 post-bupivacaine. These data indicate that synthesis of phosphorylase and the alpha, beta, and gamma subunits of phosphorylase kinase appears to be coordinately regulated at the level of message accumulation and that the expression of phosphorylase kinase activity is likely to be also regulated post-transcriptionally.

15/3,AB/53 (Item 9 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07015262 92125603
Do sensory neurons mediate adaptive cytoprotection of gastric mucosa against bile acid injury?
Mercer DW; Ritchie WP; Dempsey DT
Department of Surgery, Temple University School of Medicine, Philadelphia, Pennsylvania 19140.
Am J Surg (UNITED STATES) Jan %%%1992%%%, 163 (1) p12-7; discussion
17-8, ISSN 0002-9610 Journal Code: 3Z4
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Pretreatment with the mild irritant 1 mmol acidified taurocholate protects the gastric mucosa from the injury induced by the subsequent application of 5 mmol acidified taurocholate, a phenomenon referred to as "adaptive cytoprotection." How this occurs remains an enigma. The purpose of this study was to investigate the role of sensory neurons and mucus secretion in this phenomenon. Prior to injury with 5 mmol acidified taurocholate (pH 1.2), the stomachs of six groups of rats were subjected to the following protocol. Two groups were topically pretreated with either saline or the mild irritant 1 mmol acidified taurocholate. Two other groups received the topical anesthetic 1% lidocaine prior to pretreatment with either saline or 1 mmol acidified taurocholate. The last two groups got the mucolytic agent 10% N-acetylcysteine (NAC) after pretreatment with either saline or 1 mmol acidified taurocholate. Injury was assessed by measuring net transmucosal ion fluxes, luminal appearance of deoxyribonucleic acid (DNA), and gross and histologic injury. Pretreatment with the mild irritant 1 mmol acidified taurocholate significantly decreased bile acid-induced luminal ion fluxes and DNA accumulation, suggesting mucosal protection (corroborated by gross and histologic injury analysis). This effect was negated by lidocaine but not by NAC. Thus, it appears that sensory neurons, and not increased mucus secretion, play a critical role in adaptive cytoprotection.

15/3,AB/54 (Item 10 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

06904700 92234638
Effects of pulsing electromagnetic fields on cultured cartilage cells.
Sakai A; Suzuki K; Nakamura T; Norimura T; Tsuchiya T
Department of Orthopaedic Surgery, School of Medicine, University of Occupational and Environmental Health, Kitakyushu, Japan.
Int Orthop (GERMANY) %%%1991%%%, 15 (4) p341-6, ISSN 0341-2695
Journal Code: GRF
Languages: ENGLISH
Document type: JOURNAL ARTICLE
In order to evaluate the effects of pulsing electromagnetic fields (PEMFs) on cell proliferation and glycosaminoglycan (GAG) synthesis and to
study the action site of PEMF stimulation in the cells, we performed a series of experiments on rabbit costal growth cartilage cells and human articular cartilage cells in culture. A PEMF stimulator was made using a Helmholz coil. Repetitive pulse burst electric currents with a burst width of 76 ms, a pulse width of 230 microseconds and 6.4 Hz were passed through
this coil. The magnetic field strength reached 0.4 mT (tesla) on the average. The syntheses of DNA and GAG were measured by

3H-thymidine and
35S-sulfuric acid incorporations. The effects on the cells treated with lidocaine, adriamycin and irradiation were also measured using a colony forming assay. The PEMF stimulation for the duration of 5 days promoted both cell proliferation and GAG synthesis in growth cartilage cells and intermittent stimulation on and off alternatively every 12 h increased them most significantly, while, in articular cartilage cells, the stimulation promoted cell proliferation, but did not enhance GAG synthesis. PEMF stimulation promoted cells treated with lidocaine more significantly than with other agents. These results present evidence that intermittent PEMF stimulation is more effective on both cell proliferation and GAG synthesis of cartilage cells than continuous stimulation, and that the stimulation could exert effects not by nucleus directly, but by the cellular membrane-dependent mechanism. This study provides further basic data to encourage the clinical application of PEMF stimulation on bone and cartilage disorders.

15/3,AB/55 (Item 11 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

06570705 91198830
Cocaine acutely inhibits DNA synthesis in developing rat brain regions: evidence for direct actions.
Anderson-Brown T; Slotkin TA; Seidler FJ
Department of Pharmacology, Duke University Medical Center, Durham, NC
22710.
Brain Res (NETHERLANDS) Dec 24 %%%1990%%%, 537 (1-2) p197-202, ISSN
0006-8993 Journal Code: B5L
Contract/Grant No.: DA-05031, DA, NIDA
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Perinatal exposure to cocaine has been shown to cause morphological and neurobehavioral abnormalities. In the current study, neonatal rats were given an acute injection of cocaine (30 mg/kg s.c.) at 1, 3, 5, 8, 11 or 15 days of age, and [3H]thymidine incorporation into DNA examined over the ensuing 30 min period. Three brain regions were used that differ in their timetables of cell maturation: cerebellum, cerebral cortex and midbrain + brainstem. Cocaine inhibited DNA synthesis in all brain regions, with diminishing impact as the animals matured; by 15 days of age, the effect of cocaine was no longer significant. Inhibition of macromolecule synthesis was selective for DNA, as [3H]leucine incorporation into protein was much less affected by cocaine. Although inhibition of [3H]thymidine incorporation by a single injection of cocaine was short-lived, repeated administration could have cumulative effects: chronic treatment on days 2, 3 and 4 did not desensitize the adverse effect of a subsequent dose administered on day 5. Additionally, with chronic cocaine, the cerebellum displayed a pronounced rebound elevation of DNA synthesis 24 h after the last dose, a characteristic finding in delayed cell maturation. Inhibition of DNA synthesis by cocaine in developing brain was not secondary to ischemia, nor to local anesthesia, as alpha-adrenergic blockade with phenoxybenzamine afforded no protection, and lidocaine could not substitute for cocaine. In contrast, a small amount (15 micrograms) of cocaine injected directly into the central nervous system readily caused inhibition of DNA synthesis; the same dose given systemically had no effect. These data suggest that cocaine damages the developing brain, in part, through direct interference with DNA synthesis.

15/3,AB/56 (Item 12 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

06349619 89352364
Hydroxyl radical mediated DNA base modification by manmade mineral
fibres.
Leanderson P; Soderkvist P; Tagesson C
Department of Occupational Medicine, University Hospital, Linkoping, Sweden.
Br J Ind Med (ENGLAND) Jul %%%1989%%%, 46 (7) p435-8, ISSN 0007-1072
Journal Code: AXS
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Manmade mineral fibres (MMMFs) were examined for their ability to hydroxylate 2-deoxyguanosine (dG) to 8-hydroxydeoxyguanosine (8-OH-dG), a
reaction that is mediated by hydroxyl radicals. It appeared that (1) catalase and the hydroxyl radical scavengers, dimethylsulphoxide and sodium benzoate, inhibited the hydroxylation, whereas Fe2+ and H2O2 potentiated it; (2) pretreatment of MMMFs with the iron chelator, deferoxamine, or with extensive heat (200-400 degrees C), attenuated the hydroxylation; (3) the hydroxylation obtained by various MMMFs varied considerably; (4) there was
no apparent correlation between the hydroxylation and the surface area of different MMMFs, although increasing the surface area of a fibre by crushing it increased its hydroxylating capacity; and (5) there was good correlation between the hydroxylation of dG residues in DNA and the hydroxylation of pure dG in solution for the 16 different MMMFs investigated. These findings indicate that MMMFs cause a hydroxyl radical mediated DNA base modification in vitro and that there is considerable variation in the reactivity of different fibre species. The DNA modifying ability seems to depend on physical or chemical characteristics, or both, of the fibre.

15/3,AB/57 (Item 13 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

06337285 87292973
Cytotoxicities of sodium benzoate in primary culture of hepatocytes from adult rat liver.
Oyanagi K; Kuniya Y; Nagao M; Tsuchiyama A; Nakao T
Tohoku J Exp Med (JAPAN) May %%%1987%%%, 152 (1) p47-51, ISSN
0040-8727 Journal Code: VTF
Languages: ENGLISH
Document type: JOURNAL ARTICLE
The cytotoxicities of sodium benzoate was studied using primary culture of hepatocytes established from adult rat liver by a collagenase perfusion technique and maintained as a monolayer in serum-free culture medium. The activities of ornithine transcarbamylase (as a marker of mitochondria) and tyrosine aminotransferase (as a marker of cytosol) were clearly suppressed by sodium benzoate at concentration in excess of 500 micrograms/ml. Intracellular protein synthesis and DNA synthesis were also suppressed, and the suppression of DNA synthesis was observed even with a lower concentration of benzoate (100 micrograms/ml).

15/3,AB/58 (Item 14 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

06336066 87214218
Benzamide-DNA interactions: deductions from binding, enzyme kinetics and
from X-ray structural analysis of a 9-ethyladenine-benzamide adduct.
McLick J; Hakam A; Bauer PI; Kun E; Zacharias DE; Glusker JP
Biochim Biophys Acta (NETHERLANDS) Jun 6 %%%1987%%%, 909 (1) p71-83,
ISSN 0006-3002 Journal Code: A0W
Contract/Grant No.: HL-27317, HL, NHLBI; CA-10925, CA, NCI; CA-06927, CA,
NCI; +
Languages: ENGLISH
Document type: JOURNAL ARTICLE
The interaction of benzamide with the isolated components of calf thymus poly(ADP-ribose) polymerase and with liver nuclei has been investigated. A benzamide-agarose affinity gel matrix was prepared by coupling o-aminobenzoic acid with Affi-Gel 10, followed by amidation. The benzamide-agarose matrix bound the DNA that is coenzymic with poly(ADP-ribose) polymerase; the matrix, however, did not bind the purified poly(ADP-ribose) polymerase protein. A highly radioactive derivative of benzamide, the 125I-labelled adduct of o-aminobenzamide and the Bolton-Hunter reagent, was prepared and its binding to liver nuclear DNA, calf thymus DNA and specific coenzymic DNA of poly(ADP-ribose) polymerase
was compared. The binding of labelled benzamide to coenzymic DNA was
several-fold higher than its binding to unfractionated calf thymus DNA. A DNA-related enzyme inhibitory site of benzamide was demonstrated in a

reconstructed poly(ADP-ribose) polymerase system, made up from purified enzyme protein and varying concentrations of a synthetic octadeoxynucleotide that serves as coenzyme. As a model for benzamide binding to DNA, a crystalline complex of 9-ethyladenine and benzamide was
prepared and its X-ray crystallographic structure was determined; this indicated a specific hydrogen bond between an amide hydrogen atom and N-3
of adenine. The benzamide also formed a hydrogen bond to another benzamide
molecule. The aromatic ring of benzamide does not intercalate between ethyladenine molecules, but lies nearly perpendicular to the planes of stacking ethyladenine molecules in a manner reminiscent of the binding of ethidium bromide to polynucleotides. Thus we have identified DNA as a site of binding of benzamide; this binding is critically dependent on the nature of the DNA and is high for coenzymic DNA that is isolated with the purified enzyme as a tightly associated species. A possible model for such binding has been suggested from the structural analysis of a benzamide-ethyladenine complex.

15/3,AB/59 (Item 15 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

06325027 85198809
Metabolic effects of poly (ADP-ribose) inhibitors.
Milam KM; Cleaver JE
Basic Life Sci (UNITED STATES) %%%1985%%%, 31 p25-31, ISSN 0090-5542
Journal Code: 9K0
Languages: ENGLISH
Document type: JOURNAL ARTICLE

15/3,AB/60 (Item 16 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

05501884 87282581
The role of depolarization in the survival and differentiation of cerebellar granule cells in culture.
Gallo V; Kingsbury A; Balazs R; Jorgensen OS
J Neurosci (UNITED STATES) Jul %%%1987%%%, 7 (7) p2203-13, ISSN
0270-6474 Journal Code: JDF
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Cultures greatly enriched in granule cells from early postnatal cerebellum (P8) were grown in a medium containing fetal calf serum. Under the conditions used, nerve cells died, usually within a week, unless the K+ concentration in the medium was greater than or equal to 20 mM. The requirement for elevated [K+]e was manifested by about 3 d in vitro, and after this time continuous exposure to high [K+]e was essential for the survival of the granule cells. The initial morphological and biochemical maturation of the granule cells was similar in the presence and the absence of elevated [K+]e, suggesting that the dependence on depolarizing conditions develops in parallel with the expression of the differentiated characteristics of the cells. The positive effect of elevated [K+]e on granule cell survival was not influenced by preventing bioelectric activity in the cultures with TTX and xylocaine. On the other hand, depolarization-induced transmembrane Ca2+ flux was essential in securing the maintenance of the granule cells. Depolarized nerve cells were compromised when Ca2+ entry was blocked by elevated Mg2+, EGTA, or organic
Ca2+ antagonists, while dihydropyridine Ca2+ agonists [BAY K 8644, (+)-(S)-202 79 1 and CGP 28392] were potent agents preventing nerve cell loss in the presence of 15 mM [K+]e, which was ineffective on its own. Calmodulin inhibitors (1 microM trifluoperazine or calmidazolium) blocked the beneficial effect of K+-induced depolarization on granule cells. The comparison of the timing of the differentiation and innervation of the postmitotic granule cells in vivo with the development of the K+ dependence in vitro would indicate that depolarization of the granule neurons in culture mimics the influence of the physiological stimulation in vivo through excitatory amino acid receptors, including N-methyl-D-aspartate receptors, involving Ca2+ entry and the activation of a Ca2+/calmodulin-dependent protein kinase.

15/3,AB/61 (Item 17 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

05214378 86257950
Action of low doses of vincristine, %%%lidocaine%%% and verapamil on
%%%DNA%%% replication in vitro]
Azione "in vitro" di basse dosi di Vincristina, di Lidocaina e di Verapamil sulla duplicazione del DNA.
Vietti Ramus G; Cesano L; Barbalonga A; Pallisco O
Minerva Med (ITALY) May 19 %%%1986%%%, 77 (21) p917-22, ISSN
0026-4806 Journal Code: N6M
Languages: ITALIAN Summary Languages: ENGLISH
Document type: JOURNAL ARTICLE English Abstract
Lidocaine and Verapamil at pharmacological doses which for single drug are not cytotoxic, when used together in vitro, inhibit DNA replication in PHA-stimulated lymphocytes but not in Jurkat cell (T-ALL line) cultures. At the same concentration the two drugs used in association with very low doses of Vincristine are cytotoxic to PHA-stimulated lymphocytes and Jurkat cells. Cytotoxic action of Doxorubicin is not increased by Lidocaine or by Verapamil or by an association of the two drugs. Changes in calcium ion concentration in the medium did not show any significant effect. These results suggest that Lidocaine and Verapamil have a common mechanism of
action and have a toxic action on the same cell structure of Vincristine; furthermore the cytotoxic action of Vincristine is considerably increased. These in vitro effects could be tested in animal models.

15/3,AB/62 (Item 18 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

04660542 84237283
Detection of DNA lesions in cultured human fibroblasts induced by active oxygen species generated from a hydroxylated metabolite of 2-naphthylamine.
Kaneko M; Nakayama T; Kodama M; Nagata C
Gann (JAPAN) Apr %%%1984%%%, 75 (4) p349-54, ISSN 0016-450X
Journal Code: FGJ
Languages: ENGLISH
Document type: JOURNAL ARTICLE
DNA lesions induced by active oxygen species generated from N-hydroxy-2-naphthylamine were detected by an alkaline elution technique using cultured normal human lung fibroblast cells. The lesions were detected dose-dependently when cells were treated with the carcinogen either at 0 degrees or at 20 degrees. Their formation was strongly dependent on pH and increased with alkalinity up to pH 8.2 in parallel with the formation of hydrogen peroxide. Inhibition was observed by catalase, superoxide dismutase, and benzoic acid which is a typical hydroxyl radical scavenger. Other hydroxyl radical scavengers, mannitol and ethanol, were only effective when a cell-free in vitro reaction system was used, followed by alkaline elution. These results imply first that hydrogen peroxide and superoxide anion radicals generated during the conversion of N-hydroxy-2-naphthylamine to nitroxide radical are involved in the formation of DNA lesions and second that hydroxyl radical produced by an intra-cellular metal ion-catalyzed reaction might finally react with DNA bases and the DNA backbone.

15/3,AB/63 (Item 19 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

04658441 84106505
Inhibition of etoposide-induced DNA damage and cytotoxicity in L1210 cells by dehydrogenase inhibitors and other agents.
Wozniak AJ; Glisson BS; Hande KR; Ross WE
Cancer Res (UNITED STATES) Feb %%%1984%%%, 44 (2) p626-32, ISSN
0008-5472 Journal Code: CNF
Contract/Grant No.: RCDA CA-00537, CA, NCI
Languages: ENGLISH
Document type: JOURNAL ARTICLE
The mechanism of action of 4'-demethylepipodophyllotoxin-9-(4,6-O-ethylidene-beta-D-glucopyranoside) (VP-16), an important antitumor agent, is

unclear. There is evidence that DNA may be the target of action because VP-16 causes single-strand and double-strand breaks in DNA and produces
cytotoxicity over a similar dose range. We have hypothesized that an enzyme system, such as dehydrogenase, catalyzes an oxidation-reduction reaction involving the pendant phenolic group which forms an active metabolite that causes the DNA damage and cytotoxicity. To test our hypothesis, we investigated the effect of disulfiram, an aldehyde dehydrogenase inhibitor, and its metabolite, diethyldithiocarbamate, on VP-16-induced DNA damage in
L1210 cells. Using the alkaline elution technique to assay DNA damage, we found that disulfiram and diethyldithiocerbamate inhibited VP-16-induced single-strand breaks. Both compounds were also capable of significantly reducing VP-16-induced cytotoxicity. Oxalic acid, pyrophosphate, and malonic acid, competitive inhibitors of succinate dehydrogenase, and the naturally occurring dehydrogenase substrates, succinic acid, beta-glycerophosphate, and isocitric acid, also blocked the effects of VP-16. Free-radical scavengers were also studied. While sodium benzoate was
particularly effective in preventing drug-induced DNA damage and cytotoxicity, a number of other scavengers were not. Our data are consistent with the hypothesis that VP-16 is activated by an enzyme such as a dehydrogenase which transforms it into an active intermediate resulting in DNA damage and, consequently, cell death.

15/3,AB/64 (Item 20 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

03977928 84094083
[In vitro inhibition of DNA replication by local anesthetics. Effects on human MCF7 neoplastic cells]
Inibizione "in vitro" della duplicazione del DNA da parte di anestetici locali. Effetti su cellule neoplastiche umane MCF7.
Vietti Ramus G; Cesano L; Barbalonga A
Minerva Med (ITALY) Oct 13 %%%1983%%%, 74 (39) p2269-76, ISSN
0026-4806 Journal Code: N6M
Languages: ITALIAN Summary Languages: ENGLISH
Document type: JOURNAL ARTICLE English Abstract
The action of two local anesthetics (Lidocaine and Bupivacaine) on cells of mammary carcinoma MCF7 was investigated. 3H-TdR incorporation decreases
in relation to the dose, and viability by Trypan blue does not significantly change but at high doses of anesthetic. Intercell adhesion decreases only at high concentration. When Lidocaine is removed after the fourth hour and Bupivacaine after the second hour the antimitotic action is irreversible. The inhibiting action of drugs is related to the cell number and unrelated to the time of adding the drug. There was no change of Lidocaine and Bupivacaine action on neoplastic cells at different concentration of Na+, K+ and Ca++ in the medium. Neoplastic cells are partially independent from Ca++ and we think the antimitotic effect of local anesthetics we observed can be due to: antagonist action to calmodulin; inhibition of aminoacylation of tRNA; inhibition of cholesterol synthesis; modification of membrane permeability which is however significant only for high concentration of the drug.

15/3,AB/65 (Item 21 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

02118445 76123287
Transmission of meta-%%%benzoic%%% %%%acid%%% decomposing %%%plasmid%%%
(m-BEN)]
Nakazawa A; Oya M
Nippon Saikingaku Zasshi (JAPAN) Jan %%%1975%%%, 30 (1) p192, ISSN
0021-4930 Journal Code: KHZ
Languages: JAPANESE
Document type: JOURNAL ARTICLE

15/3,AB/66 (Item 1 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs

0152684 DBA Accession No.: 93-10736
2,4-D degradation in monoculture biofilm reactors - expanded bed fermentor containing Alcaligenes eutrophus with plasmid pRO101 or plasmid pRO103
encoding a pesticide degradation pathway
AUTHOR: Clarkson W W; Yang C P; Harker A R
CORPORATE SOURCE: School of Civil Engineering, 207 Engineering South,
Oklahoma State University, Stillwater, OK 74078, USA.
JOURNAL: Water Res. (27, 8, 1275-84) %%%1993%%%
CODEN: WATRAG
LANGUAGE: English
ABSTRACT: 2 Alcaligenes eutrophus AEO106 strains were used in expanded bed
biofilm fermentors with a range of concentrations and loading rates of 2,4-D. Plasmid pRO101 encoded the 2,4-D degradation pathway in the presence of inducer (2,4-D or 3-%%%chlorobenzoic%%% %%%acid%%%),
whereas %%%plasmid%%% pRO103 allowed constitutive expression of the
pathway (by deletion of a regulatory gene). Actual loading rates were 3.6-52.3 g 2,4-D/l expanded bed volume.day. Influent levels were 166-728 mg/l (0.017-0.078%). At loadings of up to 15 g/l.day, fermentors were aerated with filtered air, whereas pure oxygen was necessary at higher loadings. Removal of 2,4-D to below 3 mg/l occurred at loadings of up to 10 g/l.day with air and over 25 g/l.day with pure oxygen. Minimum effluent COD values were 25 mg/l, even at lower loading
conditions. The biofilm with pRO103 showed greater biomass development
(up to 3-fold higher volatile solids), 50-100% higher specific substrate conversion rates, more rapid response to feed rate and concentration increases, and more consistent effluent quality. 1/3 Lower effluent COD levels were noted with pRO103 over pRO101. (14 ref)

15/3,AB/67 (Item 2 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs

0140838 DBA Accession No.: 92-13330
Expression and transfer of engineered catabolic pathways harbored by Pseudomonas spp. introduced into activated sludge microcosms - Pseudomonas putida and Pseudomonas sp. survival, recombinant gene expression and plasmid transfer as an example of genetically engineered microorganism release to the environment
AUTHOR: Nuesslein K; Maris D; Timmis K; +Dwyer D F
CORPORATE SOURCE: National Research Center for Biotechnology, Molecular
Microbial Ecology Group, Department of Microbiology, 3300 Braunschweig,
Germany.
JOURNAL: Appl.Environ.Microbiol. (58, 10, 3380-86) %%%1992%%%
CODEN: AEMIDF
LANGUAGE: English
ABSTRACT: Pseudomonas sp. B13 FR1 (plasmid pFRC20P) (FR120) and Pseudomonas
putida KT2440 (plasmid pWWO-EB62) (EB62) were introduced into activated
sludge. FB120 contains an o-cleavage route for degradation of 3-chlorobenzoic acid (3CB) and 4-methyl %%%benzoic%%% %%%acid%%% (4MB);
EB2 contains a TOL %%%plasmid%%%-encoded toluene degradation pathway
that additionally processes 3-ethyl benzoic acid (4EB). Bacteria added at 1-10 million cells/ml of activated sludge declined to stable populations of 10,000-100,000 cells/ml. FR120 degraded 3CB and 4MB (1
mM each) after 3 days of adaptation. Indigenous microorganisms (IMs) needed an 8-day adaptation before 4MD was degraded; 3CB was degraded
only after the 4MB level was much reduced. IMs were killed when both compounds were present at 4.0 mM, but in the presence of FR120, maintained a normal viable cell density. IMs degraded 2 mM 4EB. Transfer of pFRC20P to P. putida UWC1 was not detectable in filter matings and was rarely observed in microcosms. pWWO-EB62 transferred to

UWC1 at a frequency of 0.1 per donor cell in filter matings; in microcosms, transconjugants reached a density of 1,000 bacteria/ml. (39 ref)

15/3,AB/68 (Item 3 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs

0137816 DBA Accession No.: 92-10308
Distribution of plasmid and chromosome mediated catabolism of chlorobenzoates in Pseudomonas putida P111 - 3-chlorobenzoic acid, 4-chlorobenzoic acid pesticide degradation and 3,5-%%%dichlorobenzoic%%% %%%acid%%% degradation; %%%plasmid%%% profile for chlorobenzoate-dioxygenase activity (conference abstract)
AUTHOR: Brenner V; Hernandez B S; Focht D D
CORPORATE SOURCE: University of California, Riverside, CA 92521, USA.
JOURNAL: Abstr.Gen.Meet.Am.Soc.Microbiol. (92 Meet., 369) %%%1992%%%
CODEN: 0005P
LANGUAGE: English
ABSTRACT: Pseudomonas putida P111 utilizes a broad range of mono-di-and trichlorinated benzoates for growth. Isolation of different phenotypes, varying in response to utilization of chlorobenzoate (CB) substrates, coincided with a change in plasmid profiles. These changes, and in vivo transfer of DNA, suggested the existence of 2 separate CB-dioxygenases: (1) a 75 kb plasmid-encoded enzyme, which initiates the degradation of ortho CBs by subsequent liberation of CO2 and HCl; and (2) a chromosome-encoded enzyme, which oxidizes 3CB and 4CB in a similar manner to benzoate. Previous studies have shown that a functional diol-dehydrogenase was induced only by 3CB and 4CB, and that P111 would grow on 3,5-diCB only when 3CB or 4CB were also present. A variant of P111 capable of growth on 3,5-diCB was obtained by continuous subculture from medium containing progressively lower and higher concentrations of 3CB and 3,5-diCB, respectively. The plasmid profiles of this variant altered in response to the growth substrate. Further degradation of chlorocatechols and catechol in P. putida P111 was encoded by chromosomal genes. (0 ref)

15/3,AB/69 (Item 4 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs

0137510 DBA Accession No.: 92-10002
Metabolism of polychlorobiphenyls (PCBs) by Pseudomonas - polychlorinated biphenyl degradation and chlorobenzoic acid herbicide pesticide degradation; transconjugation with Pseudomonas putida and helper plasmid pRK2013 (conference abstract)
AUTHOR: Arensdorf J J; Focht D D
CORPORATE SOURCE: University of California, Riverside, CA 92521, USA.
JOURNAL: Abstr.Gen.Meet.Am.Soc.Microbiol. (92 Meet., 342) %%%1992%%%
CODEN: 0005P
LANGUAGE: English
ABSTRACT: Pseudomonas sp. P166 was isolated by enrichment on biphenyl from an industrial sewage effluent. The strain grew on all 3 monochlorobiphenyl isomers, but was unable to grow on any of the corresponding monochlorobenzoic acids. Growth on 4-chlorobiphenyl resulted in mineralization with release of chloride. Although 3-chlorobiphenyl stimulated high density growth, it was not mineralized. Growth on 2-chlorobiphenyl also did not lead to mineralization, but was accompanied by a darkening of the medium, due to polymerization of catecholic intermediates. During growth on biphenyl, P166 transformed many polychlorinated biphenyl (PCB) congeners of Aroclor-1254, including 2,2',3,3',4,6'-hexachlorobiphenyl. Transconjugants able to grow on biphenyl, chlorobenzoic acid and monochlorobiphenyls were obtained by triparental matings between P166, Pseudomonas putida P111 (a broad range %%%chlorobenzoic%%% %%%acid%%% degrader) and helper %%%plasmid%%% pRK2013 (maintained in Escherichia coli). The transconjugants mineralized monochlorobiphenyls, but were less effective than P166 in transforming more highly chlorinated PCB congeners. (0 ref)

15/3,AB/70 (Item 5 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs

0133528 DBA Accession No.: 92-06020
Isolation and screening of plasmids from the epilithon which mobilize recombinant plasmid pD10 - mobilization of Pseudomonas putida plasmid pD10 encoding 3-chlorobenzoic acid herbicide pesticide degradation in the environment
AUTHOR: Hill K E; +Weightman A J; Fry J C
CORPORATE SOURCE: School of Pure and Applied Biology, University of Wales College of Cardiff, P.O. Box 915, Cardiff CF1 3TL, Wales, UK.
JOURNAL: Appl.Environ.Microbiol. (58, 4, 1292-300) %%%1992%%%
CODEN: AEMIDF
LANGUAGE: English
ABSTRACT: The potential of bacteria from river epilithon to mobilize the recombinant catabolic plasmid pD10, encoding 3-chlorobenzoic acid degradation and kanamycin-resistance, was determined. 54 Mobilizing plasmids were isolated by triparental matings between Pseudomonas putida genetically engineered microorganism strains and epilithic bacteria from the River Taff. Mobilization frequencies were 1.7 x 10 power -8 to 4.5 x 10 power -3 per recipient at 20 deg. The mobilizing plasmids were 40 to over 200 kb in size, and 19 plasmids encoded mercury resistance. Plasmid-encoded tetracycline-resistance and streptomycin-resistance were also found, but not UV or heavy metal resistance. Optimal pD10 mobilization occurred at 15-25 deg. 4 Plasmids had a broad host range, transferring mercury resistance and mobilizing pD10 readily to beta- and gamma-purple bacteria. Frequencies of pD10 mobilization by epilithic bacterial plasmids were 2-3 orders of magnitude lower than conjugal transfer frequencies. Thus there was a high potential for exchange of recombinant genes introduced into the epilithon by mobilization between a variety of bacterial spp. (56 ref)

15/3,AB/71 (Item 6 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs

0130198 DBA Accession No.: 92-02690
Evidence for 4-chlorobenzoic acid dehalogenation mediated by plasmids related to pSS50 - 4-chlorobenzoic acid herbicide pesticide degradation by Alcaligenes sp. (plasmid pSS70)
AUTHOR: Layton A C; Sanseverino J; Wallace W; Corcoran C; +Sayler G S
CORPORATE SOURCE: Department of Microbiology and Center for Environmental Biotechnology, The University of Tennessee, Knoxville, Tennessee 37932, USA.
JOURNAL: Appl.Environ.Microbiol. (58, 1, 399-402) %%%1992%%%
CODEN: AEMIDF
LANGUAGE: English
ABSTRACT: Alcaligenes sp. A5 (plasmid pSS50) is capable of plasmid-mediated catabolism of 4-chlorobiphenyl (4CB) to CO2. The 4CB-degrading bacterial strain 1C1 and Alcaligenes sp. ALP83 contain plasmid pSS60 and plasmid pSS70, respectively, which are very similar to pSS50. The function of the extra DNA fragments in pSS60 and pSS70 was investigated. Plasmid DNA was isolated from strains A5, 1C1 and ALP83 for construction of restriction maps and comparison of pSS50, pSS60 and pSS70. Hybridization analyses indicated that pSS60 was very similar to pSS50 except for a unique 7 kb fragment. pSS70 also contained a unique 10 kb region that did not hybridize to pSS50 but did hybridize to the 7 kb fragment of pSS60. An additional plasmid pSS65 was detected in ALP83. Chloride release from 4-chlorobenzoic acid was examined in strains carrying pSS50, pSS65 or pSS70. 4CB-degrading Alcaligenes sp. ALP83 was capable of degrading 4-chlorobenzoic acid to 4-hydroxybenzoic acid. The dehalogenase activity was correlated with the unique 10 kb fragment carried on pSS70. (25 ref)

15/3,AB/72 (Item 7 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs
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0128401 DBA Accession No.: 92-00893
Cloning of 3-chlorobenzoate-degrading genes from Pseudomonas putida strain
87 - 3-chlorobenzoic acid herbicide pesticide degradation gene localization on plasmid pBS109, cloning, expression in Pseudomonas aeruginosa and Escherichia coli; potential catechol-1,2-dioxygenase gene
AUTHOR: Kulakova A N; Kulakov L A; Boronin A M
CORPORATE SOURCE: Institute of Biochemistry and Physiology of Microorganisms, Academy of Sciences of the USSR, Pushchino, Moscow Region, USSR.
JOURNAL: Genetika(Moscow) (27, 10, 1697-704) %%%1991%%%
CODEN: GNKAA5
LANGUAGE: Russian
ABSTRACT: Localization of Pseudomonas putida 87 and BS379 genes encoding
3-chlorobenzoic acid degradation to a 5.5 kb fragment of plasmid pBS109, cloning of these genes in vector plasmid pSP329 to form plasmid pBS110, and their expression in Escherichia coli and Pseudomonas aeruginosa PA02175, were described. After 6 hr incubation in the presence of 3-chlorobenzoic acid, transformant colonies appeared. Transfer of degradative activity from BS379 to PA02175, and hybridization of pBS109 with a DNA probe containing the %%%chlorobenzoic%%% %%%acid%%% degrading gene of %%%plasmid%%% pAC27,
indicated that degradation of 3-chlorobenzoic acid by P. putida 87 was determined by genes localized on plasmid pBS109. Problems of conjugative transfer of plasmid pBS109, the low level of expression in transconjugant strains, and the impossible elimination from P. putida 87 indicated that some of the genes for 3-chlorobenzoic acid degradation were located on the chromosome. Possible regions of homology of plasmid pBS109 with the chromosome of strain 87 were identified. Plasmid pBS109 may encode catechol-1,2-dioxygenase (EC-1.13.11.1) specific for halogenated catechol. (20 ref)

15/3,AB/73 (Item 8 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs
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0124987 DBA Accession No.: 91-12629
Homologies between plasmid and chromosomally-encoded benzoate-oxidizing
genes in Pseudomonas putida - DNA hybridization between chromosomal benABCD gene and TOL plasmid xylXYZL gene; potential application to benzoic acid degradation, etc.
AUTHOR: Lobley J; +Keil H
CORPORATE SOURCE: Department of Biology and Biochemistry, Brunel University, Uxbridge, Middlesex UB8 3PH, UK.
JOURNAL: Lett.Appl.Microbiol. (13, 2, 66-70) %%%1991%%%
CODEN: LAMIE7
LANGUAGE: English
ABSTRACT: The genes in Pseudomonas putida PaW1 coding for the multi-enzyme
complex involved in the biotransformation of aromatic carboxylic acid into catechols are present in duplicate on the main chromosome, as part of the ortho cleavage pathway encoding benzoic acid oxidation (benABCD), and on the TOL plasmid, as part of the xylene catabolic gene cluster (xylXYZL) bringing about m-toluate oxidation followed by meta cleavage. DNA-DNA hybridization was used to detect homologies between
the TOL plasmid pWW53-encoded gene cluster xylXYZL and the chromosomally-located benABCD gene. A DNA probe corresponding to a
region downstream of xylL did not hybridize to Pseudomonas chromosomal
DNA. These results support the concept that catabolic operons may evolve by successive recruitment of other genes, in this case via the juxtaposition of the benABCD gene cluster upstream of the xylE gene on TOL plasmids. (16 ref)

15/3,AB/74 (Item 9 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs
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0124603 DBA Accession No.: 91-12245
Process strategies to enhance transfer of plasmid coded degradative properties for chlorinated hydrocarbons in sequencing batch reactors - 2,4-D and 3-chlorobenzoic acid herbicide pesticide degradation by Pseudomonas putida (plasmid pJP4) and Alcaligenes eutrophus (plasmid pAC27) (conference paper)
AUTHOR: Rubio M A; Wilderer P A
CORPORATE SOURCE: Department of Environmental Technology, Technical
University Hamburg-Harburg, Germany.
JOURNAL: Biotechnol.Appl.Hazardous Waste Treatment (395-401) %%%1989%%%
CODEN: 9999Z
LANGUAGE: English
ABSTRACT: The effects of process cycle duration and periodic increases in haloaromatic concentration on plasmid transfer rates and degradative gene expression in a sequencing batch fermentor (SBF) were studied. 2 Parallel SBFs were inoculated with separately grown cultures of: (a) donor strain Alcaligenes eutrophus JMP 134, harboring plasmid pJP4 encoding 2,4-D degradation, and recipient strain A. eutrophus JMP 222; or (b) donor strain Pseudomonas putida PRS 2015, harboring plasmid pAC27 encoding 3-chlorobenzoic acid (3CBa) degradation, and recipient strain P. putida PRS 2015. The feed solution contained 270 mg/l fructose, mineral salts and 660 mg/l 2,4-D or 470 mg/l 3CBa. Experiments were performed with cycles of 6, 8, 12 and 24 hr in the 2,4-D system, and 8, 12 and 24 hr in the 3CBa system. In the 2,4-D system, the yield of transconjugants increased significantly when the SBF was filled quickly and frequently. In the 3CBa system, shorter cycles gave higher transconjugant numbers, while the fill rate did not affect the transconjugant yield. The proportion of transconjugants in the 2,4-D was system was significantly higher than in the 3CBa system. (0 ref)

15/3,AB/75 (Item 10 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs
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0124578 DBA Accession No.: 91-12220
The anaerobic dechlorinating bacterium Desulfomonile tiedjei strain DCB-1 carries a plasmid - isolation and characterization of new plasmid; 3-chlorobenzoic acid pesticide degradation; potential application vector construction (conference abstract)
AUTHOR: Cole J R; Tiedje J M
CORPORATE SOURCE: Michigan State University, East Lansing, MI 48824, USA.
JOURNAL: Abstr.Gen.Meet.Am.Soc.Microbiol. (91 Meet., 282) %%%1991%%%
CODEN: 0005P
LANGUAGE: English
ABSTRACT: During an attempt to improve DNA extraction from Desulfomonile
tiedjei DCB-1 (dechlorinates 3-chlorobenzoic acid), it was observed that the bacterium carried a small plasmid. The yield of plasmid DNA from DCB-1 was low. However, by end labeling restriction digests of gel-purified plasmid DNA, a partial restriction map of the plasmid was obtained. The plasmid was about 28 kb in size and contained a single SmaI site. Several fragments of the plasmid were subcloned into Escherichia coli for possible use as gene probes. Functions of the plasmid are unknown. Since catabolic pathways for uncommon substrates are often plasmid-encoded, it may be possible that this plasmid is involved in %%%chlorobenzoic%%% %%%acid%%% degradation. This
%%%plasmid%%% may facilitate the construction of vectors for the genetic analysis of D. tiedjei. (0 ref)

15/3,AB/76 (Item 11 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs
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0123176 DBA Accession No.: 91-10818
Mathematical analysis of catabolic function loss in a population of Pseudomonas putida mt-2 during non-limited growth on benzoate - effect of TOL plasmid pWW0 loss on benzoic acid degradation
AUTHOR: Duetz W A; Winson M K; van Andel J G; Williams P A

CORPORATE SOURCE: Laboratory for Waste Materials and Emissions, National
Institute of Public Health and Environmental Protection, PO Box 1, 3720 B A Bilthoven, The Netherlands.
JOURNAL: J.Gen.Microbiol. (137, Pt.6, 1363-68) %%%1991%%%
CODEN: JGMIAN
LANGUAGE: English
ABSTRACT: Pseudomonas putida mt-2 (ATCC 33015) harboring the TOL plasmid
pWW0 was grown continuously on benzoic acid in a pH-auxostat (100 ml
glass fermentor, 900 rpm, 300 ml/min aeration, 28 deg) at a non-limited rate. During the course of the experiment (120 hr) the % of the population harboring the complete TOL plasmid dropped from 100% to below 0.5%. This decrease was caused by growth-rate advantage of spontaneous mutants carrying a partially deleted plasmid (TOL- cells). The growth rate difference (v) was quantified both by measuring the increase in the dilution rate (0.68-0.79/hr, v = 0.11/hr) and by mathematical analysis of the ingrowth of TOL- cells (v = 0.12/hr). The latter procedure also established that the segregation rate was of the order of magnitude 0.00001/hr. Similar values for the growth-rate advantage and the segregation rate were found when benzoic acid and succinic acid were present in non-limiting concentrations. The growth-rate disadvantage of the wild-type strain may be caused by inhibitory effects of an intermediate in the degradation of %%%benzoic%%% %%%acid%%% via the %%%plasmid%%%-encoded meta-pathway.
(23 ref)

15/3,AB/77 (Item 12 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs
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0120454 DBA Accession No.: 91-08096
Transfer and expression of the catabolic plasmid pBRC60 in wild bacterial recipients in a freshwater ecosystem - 3-%%%chlorobenzoic%%% %%%acid%%%
herbicide pesticide degradation %%%plasmid%%% transfer to Pseudomonas
fluorescens, Pseudomonas sp., etc.
AUTHOR: Fulthorpe R R; Wyndham R C
CORPORATE SOURCE: Department of Chemical Engineering, University of
Toronto, Toronto, Ontario, Canada M5S 1A4.
JOURNAL: Appl.Environ.Microbiol. (57, 5, 1546-53) %%%1991%%%
CODEN: AEMIDF
LANGUAGE: English
ABSTRACT: Bacteria capable of 3-chlorobenzoic acid (3CBA) degradation were
isolated from waters and sediments of flowthrough mesocosms dosed with 3CBA and inoculated with Alcaligenes sp. BR60, a 3CBA degrader. Bacteria distinct from BR60 but capable of 3CBA degradation were isolated. They carried the BR60 plasmid pBRC60, which includes transposon Tn5271 which is responsible for 3CBA degradation. Most pBRC60 recipients were motile, yellow pigmented, Gram-negative rods related to group III pseudomonads and to BR60 by substrate utilization pattern. They were capable of complete 3CBA degradation at both mM and
uM concentrations. Pseudomonas fluorescens PR24B (pBRC60) and Pseudomonas sp. PR120 (pBRC60) isolates were more distantly related to BR60 and both produced chlorocatechol when exposed to 3CBA at mM
concentrations. They showed poor growth in liquid 3CBA minimal medium
but degraded 3CBA in continuous cultures dosed with uM levels of the chemical. Laboratory matings confirmed that pBRC60 transferred from BR60 to proteobacteria belonging to both the beta and gamma subgroups and that the 3CBA gene expression was variable between spp. (34 ref)

15/3,AB/78 (Item 13 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs
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0118974 DBA Accession No.: 91-06616
Gene transfer in activated sludge - monitoring genetically engineered microorganism e.g. Pseudomonas putida in environment and plasmid mobilization (conference paper)
AUTHOR: McClure N C; Fry J C; Weightman A J
CORPORATE SOURCE: School of Pure and Applied Biology, University of Wales
College of Cardiff, PO Box 915, Cardiff CF1 3TL, UK.
JOURNAL: Bact.Genet.Natur.Environ. (111-29) %%%1990%%%
CODEN: 9999Y
LANGUAGE: English
ABSTRACT: Due to the possibility of genetically engineered microorganisms
(GEMs) entering domestic sewage treatment works after accidental or deliberate release, it is important to assess the persistence of GEMs in activated sludge and to evaluate the extent of genetic exchange with the indigenous waste-water microorganisms. A laboratory-scale activated sludge unit (ASU) was used to study the acquisition of mobilizing plasmids by Pseudomonas putida UWC1 harboring non-conjugative plasmid
pD10 carrying genes encoding 3-chlorobenzoic acid (3CB) degradation and
kanamycin-resistance (KmR). Plasmid transfer was observed in the presence of a heterogeneous waste-water population and the predatory protozoa characteristic of a full scale ASU. The capacity of indigenous activated sludge bacteria to act as recipients of pD10 and express the full 3CB KmR phenotype was demonstrated by in vitro mating experiments.
Direct evidence for mobilization of pD10 to indigenous activated sludge bacteria was obtained following the introduction into the ASU of P. putida ASR5.10 containing pD10 and at least 1 activated sludge-derived mobilizing plasmid. (48 ref)

15/3,AB/79 (Item 14 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs
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0117159 DBA Accession No.: 91-04801
Evidence that enzymes of a novel aerobic 2-amino-benzoate metabolism in denitrifying Pseudomonas are coded on a small plasmid - plasmid pKB740 role in 2-aminobenzoic acid degradation
AUTHOR: Altenschmidt U; Eckerskorn C; +Fuchs G
CORPORATE AFFILIATE: Max-Planck-Inst.Biochem.
CORPORATE SOURCE: Abteilung Angewandte Mikrobiologie, Universitaet Ulm,
Postfach 4066, W-7900 Ulm, Germany.
JOURNAL: Eur.J.Biochem. (194, 2, 647-53) %%%1990%%%
CODEN: EJBCAI
LANGUAGE: English
ABSTRACT: Evidence that plasmid pKB740 of Pseudomonas sp. KB740 is
important in the aerobic metabolism of 2-%%%aminobenzoic%%% %%%acid%%%
(2ABA) is presented. The %%%plasmid%%% content of cells varied by a
factor of 10 depending on growth substrate; it was highest when the cells were grown aerobically on 2ABA. Escherichia coli JM83 cells transformed by pKB740 were able to grow at 37 deg on 2ABA as sole organic substrate and oxidized it to CO2. The plasmid recovered from the transformants had the same restriction map as pKB740, but was dimerized. The transformants contained the 2 key enzymes of 2ABA metabolism, 2-aminobenzoate-CoA-ligase and 2-aminobenzoyl-CoA-monooxyge
nase/reductase which were formed only during aerobic growth in the presence of 2ABA, as in the parent Pseudomonas. Southern blotting showed that the monooxygenase/reductase gene was coded on the plasmid
rather than on the chromosome. The gene was localized on a 3.2 kb restriction fragment. The formation of the monooxygenase/reductase protein in transformed E. coli was demonstrated by Western blotting of proteins of cell extracts separated by SDS-PAGE. (36 ref)

15/3,AB/80 (Item 15 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs
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0114169 DBA Accession No.: 91-01811
Comparative genetic organization of incompatibility Group P degradative plasmids - e.g. plasmid pSS50, plasmid pSS60, plasmid pBR60

comparison
with Pseudomonas sp. plasmid pJP4, plasmid R751; potential application to aromatic compound degradation
AUTHOR: Burlage R S; Bemis L A; Layton A C; +Sayler G S; Larimer F
CORPORATE SOURCE: Department of Microbiology, The University of Tennessee,
Knoxville, Tennessee 37932, USA.
JOURNAL: J.Bacteriol. (172, 12, 6818-25) %%%1990%%%
CODEN: JOBAAY
LANGUAGE: English
ABSTRACT: It is useful to know whether 2 different degradation plasmids would be compatible in the same host or whether a degradation plasmid would be stably maintained in a new host. Several plasmids that mediate the degradation of haloorganic compounds were examined. Catabolic plasmid pSS50 (from 4-chlorobiphenyl (CB)-degrading Alcaligenes sp. strain A5) and plasmid pSS60 (from 4-CB-degrading isolate strain LBS1C1), and 3-%%%chlorobenzoic%%% %%%acid%%%-degrading %%%plasmid%%%
pBR60 were compared with IncP group (Pseudomonas group P-1) plasmids
pJP4 and plasmid R751. Plasmid pSS50, plasmid pSS60 and plasmid pBR60
were also members of the IncP group, although plasmid pBR60 was more
distantly related. DNA probes specific for known genetic loci were used to determine the order of homologous loci on the plasmids. The order in all the plasmids was invariant, showing the conservation of this backbone region. All 5 plasmids displayed some homology with mercury resistance transposon Tn501. Plasmid pSS50 and plasmid pSS60 were mapped. Finally, a putative repeat region common to plasmid pSS50 and plasmid pSS60 is described, and its role in loss of the catabolic genes is discussed. (35 ref)

15/3,AB/81 (Item 16 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs
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0110360 DBA Accession No.: 90-13051
Biochemical and genetic studies on degradation of chlorobenzoates by Pseudomonas - chlorobenzoic acid degradation using Pseudomonas aeruginosa and Pseudomonas sp.
AUTHOR: Singh H; Kahlon R S
CORPORATE SOURCE: Department of Microbiology, Punjab Agricultural University, Ludhiana-141004, Punjab, India.
JOURNAL: Acta Microbiol.Pol. (38, 3-4, 259-69) %%%1989%%%
CODEN: AMPOAX
LANGUAGE: English
ABSTRACT: Chlorobenzoic acids are an important class of recalcitrant compounds classified as pollutants. Bacterial strains B16 (Pseudomonas aeruginosa) and DT4 (Pseudomonas sp.), isolated from the soil by enrichment culture, utilized 2-chlorobenzoic acid (2-CBA) and 4-chlorobenzoic acid (4-CBA) as sole C-sources and energy sources. 2-CBA and 4-CBA were added to a synthetic medium at 1500 ug/ml and 1000
ug/ml, respectively. Addition of 100 ug/ml yeast extract stimulated culture growth. Degradation studies revealed that the substrates were degraded without release of Cl- and with possible accumulation of the respective chlorophenols. Respiration studies revealed an inducible nature of enzymes for the breakdown of 2-CBA, 4-CBA, benzoic acid, 4-%%%hydroxybenzoic%%% %%%acid%%% and catechol. Extraction of
%%%plasmid%%% %%%DNA%%% from parent strains showed the presence of a
plasmid of the same size in both strains. Cured strains indicated that %%%chlorobenzoic%%% %%%acid%%% degradation genes were %%%plasmid%%%
-borne. (29 ref)

15/3,AB/82 (Item 17 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs
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0106460 DBA Accession No.: 90-09151
The meta cleavage operon of TOL degradative plasmid pWW0 comprises 13 genes
- TOL plasmid gene mapping; benzoic acid degradation and toluic acid degradation
AUTHOR: Harayama S; Rekik M
CORPORATE SOURCE: Department of Medical Biochemistry, University of Geneva,
1211 Geneva 4, Switzerland.
JOURNAL: Mol.Gen.Genet. (221, 1, 113-20) %%%1990%%%
CODEN: MGGEAE
LANGUAGE: English
ABSTRACT: The meta-cleavage operon of TOL plasmid pWW0 of Pseudomonas
putida encodes enzymes which degrade benzoic acid or toluic acid derivatives via extradiol (meta) cleavage of (methyl)catechol. The operon was characterized by cloning of the meta-cleavage genes into the expression vector plasmid pLV85, and identification of products in Escherichia coli K12 maxicells. The meta-cleavage operon contained 13 genes with order xylX, xylY, xylZ, xylL, xylT, xylE, xylG, xylF, xylJ, xylQ, xylK, xylI and xylH. The xylXYZ genes encoded 3 subunits of toluate-1,2-dioxygenase. The xylL, xylE, xylG, xylF, xylJ, xylK, xylI and xylH genes encoded
1,2-dihydroxycyclohexadiene-1-carboxylate-dehydr
ogenase, catechol-2,3-dioxygenase (EC-1.13.11.2),
2-hydroxymuconic-semi
aldehyde-dehydrogenase, 2-hydroxymuconic-semialdehyde-hydrolase, 2-oxop
ent-4-enoate-hydratase (EC-4.2.1.80), 4-hydroxy-2-oxovalerate-aldolase, 4-oxalocrotonate-decarboxylase and 4-oxalocrotonate-tautomerase, respectively. The functions of xylT and xylQ were unknown. Most of the DNA between xylX and xylH consisted of coding sequences. (38 ref)

15/3,AB/83 (Item 18 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs
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0105264 DBA Accession No.: 90-07955
Chemotaxis of Pseudomonas putida toward chlorinated benzoates - e.g. 3-chlorobenzoic acid and 4-chlorobenzoic acid; application in enhanced aromatic compound degradation
AUTHOR: Harwood C S; Parales R E; Dispensa M
CORPORATE SOURCE: Department of Microbiology, University of Iowa, Iowa
City, Iowa 52242, USA.
JOURNAL: Appl.Environ.Microbiol. (56, 5, 1501-03) %%%1990%%%
CODEN: AEMIDF
LANGUAGE: English
ABSTRACT: 3-Chlorobenzoic acid and 4-chlorobenzoic acid are chemoattractants for Pseudomonas putida PRS2000. P. putida cells that were grown with 5 mM 4-hydroxybenzoic acid and suspended in chemotaxis
buffer (50 mM potassium phosphate buffer, 10 uM EDTA) showed a drastic
modification of swimming behavior upon the addition of 3-chlorobenzoate. A smooth-swimming response was maximal at 500 uM
3-chlorobenzoic acid and was not detectable below 50 uM. P. putida cells grown with glucose and beta-adipate responded to 450 uM 3-fluorobenzoic acid and 250 uM 4-chlorobenzoic acid. 3-Chlorobenzoic acid and 4-chlorobenzoic acid were detected by a chromosomally encoded chemotactic response to benzoic acid which was inducible by beta-ketoadipate, an intermediate of %%%benzoic%%% %%%acid%%%
catabolism. %%%Plasmid%%% pAC27, encoding enzymes for 3-chlorobenzoic
acid degradation, did not appear to carry genes for chemotaxis toward chlorinated compounds. Behavioral sensing of aromatic compounds in the environment may lead to enhanced degradation as it may enable cells to locate low concentrations of compounds to use as growth substrates. (18 ref)

15/3,AB/84 (Item 19 from file: 357)
DIALOG(R)File 357:Derwent Biotechnology Abs
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0101190 DBA Accession No.: 90-03881
Operon structure and nucleotide homology of the chlorocatechol oxidation genes of plasmids pJP4 and pAC27 - 2,4-D and 3-chlorobenzoic acid pesticide degradation by Alcaligenes eutrophus and Pseudomonas putida;

09/359975
AM 10:10

1. Document ID: US 6177061 B1

L5: Entry 1 of 39

File: USPT

Jan 23, 2001

US-PAT-NO: 6177061
DOCUMENT-IDENTIFIER: US 6177061 B1
TITLE: Contrast agents comprising an azeotropic mixture of two gases for ultrasound
investigations
DATE-ISSUED: January 23, 2001

US-CL-CURRENT: 424/9.51; 424/9.52, 600/431

APPL-NO: 9/ 422323
DATE FILED: October 21, 1999

PARENT-CASE:
This application is a continuation of pending international application number PCT/GB98/01185
filed Apr. 23, 1998 (of which the entire disclosure of the pending, prior application is hereby
incorporated by reference), which itself is a continuation-in-part of U.S. provisional
application Ser. No. 60/044,405 filed Apr. 29, 1997.

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	APPL-DATE
GB	9708240	April 23, 1997

IN: Klaveness; Jo, Skurtveit; Roald, Rongved; P.ang.l, Hoff; Lars

AB: A contrast agent for use in diagnostic studies, particularly ultrasound imaging,
comprising a dispersion in an injectable aqueous medium of a biocompatible azeotropic
mixture which is in gaseous form at 37.degree. C., at least one component of said mixture
being a halocarbon having a molecular weight of at least 100.

L5: Entry 1 of 39

File: USPT

Jan 23, 2001

DOCUMENT-IDENTIFIER: US 6177061 B1
TITLE: Contrast agents comprising an azeotropic mixture of two gases for ultrasound
investigations

BSPR:
Representative and non-limiting examples of drugs useful in accordance with this embodiment of
the invention include antineoplastic agents such as vincristine, vinblastine, vindesine,
busulfan, chlorambucil, spiroplatin, cisplatin, carboplatin, methotrexate, adriamycin, mitomycin,
bleomycin, cytosine arabinoside, arabinosyl adenine, mercaptopurine, mitotane, procarbazine,
dactinomycin (antinomycin D), daunorubicin, doxorubicin hydrochloride, taxol, plicamycin,
aminoglutethimide, estramustine, flutamide, leuprolide, megestrol acetate, tamoxifen,
testolactone, trilostane, amsacrine (m-AMSA), asparaginase (L-asparaginase), etoposide,
interferon a-2a and 2b, blood products such as hematoporphyrins or derivatives of the foregoing;
biological response modifiers such as muramylpeptides; antifungal agents such as ketoconazole,
nystatin, griseofulvin, flucytosine, miconazole or amphotericin B; hormones or hormone analogues
such as growth hormone, melanocyte stimulating hormone, estradiol, beclomethasone dipropionate,
betamethasone, cortisone acetate, dexamethasone, flunisolide, hydrocortisone, methylprednisolone,
paramethasone acetate, prednisolone, prednisone, triamcinolone or fludrocortisone acetate;
vitamins such as cyanocobalamin or retinoids; enzymes such as alkaline phosphatase or manganese
superoxide dismutase; antiallergic agents such as amelexanox; anticoagulation agents such as
phenprocoumon or heparin; circulatory drugs such as propranolol; metabolic potentiators such as
glutathione; antituberculars such as p-aminosalicylic acid, isoniazid, capreomycin sulfate,
cyclosexine, ethambutol, ethionamide, pyrazinamide, rifampin or streptomycin sulphate; antivirals
such as acyclovir, amantadine, azidothymidine, ribavirin or vidarabine; blood vessel dilating
agents such as diltiazem, nifedipine, verapamil, erythritol tetranitrate, isosorbide dinitrate,
nitroglycerin or pentaerythritol tetranitrate; anticoagulants such as warfarin or heparin;
antibiotics such as dapsone, chloramphenicol, neomycin, cefaclor, cefadroxil, cephalexin,
cephradine, erythromycin, clindamycin, lincomycin, amoxicillin, ampicillin, bacampicillin,
carbenicillin, dicloxacillin, cyclacillin, picloxacillin, hetacillin, methicillin, nafcillin,
penicillin or tetracycline; antiinflammatories such as diflunisal, ibuprofen, indomethacin,
meclefenamate, mefenamic acid, naproxen, phenylbutazone, piroxicam, tolmetin, aspirin or
salicylates; antiprotozoans such as chloroquine, metronidazole, quinine or meglumine antimonate;
antirheumatics such as penicillamine; narcotics such as paregoric; opiates such as codeine,
morphine or opium; cardiac glycosides such as deslaneside, digitoxin, digoxin, digitalin or
digitalis; neuromuscular blockers such as atracurium mesylate, gallamine triethiodide,
hexafluorenium bromide, metocurine iodide, pancuronium bromide, succinylcholine chloride,
tubocurarine chloride or vecuronium bromide; sedatives such as amobarbital, amobarbital sodium,
apropbarbital, butabarbital sodium, chloral hydrate, ethchlorvynol, ethinamate, flurazepam
hydrochloride, glutethimide, methotrimeprazine hydrochloride, methyprylon, midazolam
hydrochloride, paraldehyde, pentobarbital, secobarbital sodium, talbutal, temazepam or triazolam;
local anaesthetics such as bupivacaine, chloroprocaine, etidocaine, lidocaine, mepivacaine,
procaine or tetracaine; general anaesthetics such as droperidol, etomidate, fentanyl citrate with
droperidol, ketamine hydrochloride, methohexital sodium or thiopental and pharmaceutically
acceptable salts (e.g. acid addition salts such as the hydrochloride or hydrobromide or base
salts such as sodium, calcium or magnesium salts) or derivatives (e.g. acetates) thereof. Other
examples of therapeutics include genetic material such as nucleic acids, RNA, and DNA of natural
or synthetic origin, including recombinant RNA and DNA. DNA encoding certain proteins may be used
in the treatment of many different types of diseases. For example, tumor necrosis factor or
interleukin-2 may be provided to treat advanced cancers; thymidine kinase may be provided to
treat ovarian cancer or brain tumors; interleukin-2 may be provided to treat neuroblastoma,
malignant melanoma or kidney cancer; and interleukin-4 may be provided to treat cancer.

2. Document ID: US 6156952 A

L5: Entry 2 of 39

File: USPT

Dec 5, 2000

US-PAT-NO: 6156952
DOCUMENT-IDENTIFIER: US 6156952 A
TITLE: HIV transgenic animals and uses therefor
DATE-ISSUED: December 5, 2000

US-CL-CURRENT: 800/11; 800/14, 800/21, 800/3, 800/9

APPL-NO: 9/ 058113
DATE FILED: April 9, 1998

IN: Bryant; Joseph L., Reid; William C., Davis, Jr.; Harry G.

AB: The invention provides transgenic animals comprising a lentiviral transgene, such as an HIV transgene. Also within the scope of the invention are cells and eggs from the transgenic animal. Further included are methods for identifying therapeutic compounds for preventing lentiviral infection and treating associated disease (e.g. AIDS).

L5: Entry 2 of 39

File: USPT

Dec 5, 2000

DOCUMENT-IDENTIFIER: US 6156952 A
TITLE: HIV transgenic animals and uses therefor

DEPR:
Potential founder transgenic rats were initially identified by PCR and/or by restriction enzyme digestion and Southern blot analysis. DNA for PCR or Southern blot analysis was obtained from 2-3 weeks old rat tail tips as per modification of the procedure of Hogan et al. (E. Lacy et al., Manipulating the Mouse Embryo, Cold Spring Harbor Press, N.Y. 1994). Approximately, 1 cm long rat tail tips were excised with a sterile scalpel following anesthesia with 0.02ml SQ of Lidocaine-HCL. Bleeding was controlled with silver nitrate. Following tail tip amputations, rats received Phenylbutazone 50 mg/kg, intraperitoneally as needed for pain. A Quiagen kit was used to extract DNA from tail tips.

3. Document ID: US 6139538 A

L5: Entry 3 of 39

File: USPT

Oct 31, 2000

US-PAT-NO: 6139538
DOCUMENT-IDENTIFIER: US 6139538 A
TITLE: Iontophoretic agent delivery to the female reproductive tract
DATE-ISSUED: October 31, 2000

US-CL-CURRENT: 604/515; 604/21

APPL-NO: 8/ 943966
DATE FILED: October 6, 1997

IN: Houghton; William C., Hildebrand; Keith R., Finkelstein; Martin B., Foley; Frederick J.

AB: An apparatus for iontophoretically delivering an agent to a patient having a uterus and a cervix. The apparatus comprises a probe sized to fit within the cervical canal. A cervical cap has an inner surface. The probe projects from the inner surface. A first electrode has a first portion operably connected to the cervical cap and a second portion operably connected to the probe. The first electrode is configured to be electrically connected to a power supply. A second electrode is configured to be electrically connected to the power supply. A reservoir having a first portion operably connected to the cervical cap and a second portion operably connected to the probe.

L5: Entry 3 of 39

File: USPT

Oct 31, 2000

DOCUMENT-IDENTIFIER: US 6139538 A
TITLE: Iontophoretic agent delivery to the female reproductive tract

DEPR:
An agent can include any type of composition. Examples include drugs; compositions useful for diagnostic purposes such as dyes; fixatives; genetic material such as DNA, RNA, genes, antisense oligonucleotides, and other antisense material; local anesthetics such as lidocaine, carbocaine, bupivacaine, and ropivacaine; therapeutic agents such as cytotoxic, chemotherapeutic, photosensitive agents, antiviral agents; adjuvents; penetration enhancers; and other substances that have medical applications. Additionally, the term agent can mean an agent in the form of a solution, gel, liquid, or liposome. Although the term is often used in a singular form, it can connote either a single agent or a combination of agents.

4. Document ID: US 6132988 A

L5: Entry 4 of 39

File: USPT

Oct 17, 2000

US-PAT-NO: 6132988
DOCUMENT-IDENTIFIER: US 6132988 A
TITLE: DNA encoding a neuronal cell-specific receptor protein
DATE-ISSUED: October 17, 2000

US-CL-CURRENT: 435/69.1; 435/252.1, 435/320.1, 435/325, 536/23.1, 536/23.5

APPL-NO: 8/ 738168
DATE FILED: October 25, 1996

FOREIGN-APPL-PRIORITY-DATA:
COUNTRY
APPL-NO

APPL-DATE

JP
7-280939
October 27, 1995

JP
8-174909
July 4, 1996

IN: Sugino; Hiromu, Nakamura; Takanori, Shouji; Hiroki

AB: To provide a method of isolating and detecting a new receptor gene, as a means of elucidating the function of neuronal cell-specific receptors, especially of elucidating the detailed mechanism of the neuronal cell differentiation inhibitory and nerve nutrition factor-like actions of activin receptors, DNA containing said new receptor gene, a method of producing a protein encoded by this new receptor gene, and use for this DNA and protein. The receptor protein of the present invention and DNA encoding this protein can be used for various purposes, including 1) ligand determination, 2) obtainment of antibodies and antisera, 3) construction of recombinant receptor protein expression systems, 4) development of receptor binding assay systems and screening for pharmaceutical candidate compounds using expression systems, 5) drug designing based on comparison with structurally similar ligand receptors, 6) reagent for preparation of probes and PCR primers for gene diagnosis, and 7) drug for gene therapy.

L5: Entry 4 of 39
File: USPT
Oct 17, 2000

DOCUMENT-IDENTIFIER: US 6132988 A
TITLE: DNA encoding a neuronal cell-specific receptor protein

DEPR:
The aqueous liquid may also be formulated with buffers (e.g., phosphate buffer, sodium acetate buffer), soothing agents (e.g., benzalkonium chloride, procaine hydrochloride), stabilizers (e.g., human serum albumin, polyethylene glycol), preservatives (e.g., benzyl alcohol, phenol), antioxidants etc. The thus-prepared injectable liquid is normally filled in an appropriate ampule. Because the thus-obtained preparation is safe and of low toxicity, it can be administered to warm-blooded mammals (e.g., rats, rabbits, sheep, pigs, bovines, cats, dogs, monkeys, humans), for instance. The dose of said DNA is normally about 0.1 to 100 mg, preferably about 1.0 to 50 mg, and more preferably about 1.0 to 20 mg per day for an adult (weighing 60 kg) in oral administration, depending on symptoms etc. In non-oral administration, it is advantageous to administer the DNA in the form of injectable preparation at a daily dose of about 0.01 to 30 mg, preferably about 0.1 to 20 mg, and more preferably about 0.1 to 10 mg per administration for an adult (weighing 60 kg), depending on subject of administration, target organ, symptoms, method of administration etc. For other animal species, corresponding doses as converted per 60 kg weight can be administered.

5. Document ID: US 6120794 A

L5: Entry 5 of 39
File: USPT
Sep 19, 2000

US-PAT-NO: 6120794
DOCUMENT-IDENTIFIER: US 6120794 A
TITLE: Emulsion and micellar formulations for the delivery of biologically active substances to cells
DATE-ISSUED: September 19, 2000

US-CL-CURRENT: 424/450; 424/400, 514/44, 514/938

APPL-NO: 8/ 534180
DATE FILED: September 26, 1995

IN: Liu; Dexi, Liu; Feng, Yang; Jing-Ping, Huang; Leaf

AB: New emulsion and micelle formulations are described as are complexes of these formulations with biologically active substances. The novel formulations are different from cationic lipid vectors such as cationic liposomes in that the complexes formed between biologically active substances and the emulsion and micellar formulations of this invention are physically stable and their transfection activity is resistant to the presence of serum. These novel formulations are disclosed to be useful in areas such as gene therapy or vaccine delivery.

L5: Entry 5 of 39
File: USPT
Sep 19, 2000

DOCUMENT-IDENTIFIER: US 6120794 A
TITLE: Emulsion and micellar formulations for the delivery of biologically active substances to cells

DEPR:
Examples of biologically active substances include, but are not limited to, nucleic acids such as DNA, cDNA, RNA (full length MRNA, ribozymes, antisense RNA, decoys), oligodeoxynucleotides (phosphodiesters, phosphothioates, phosphoramidites, and all other chemical modifications), oligonucleotide (phosphodiesters, etc.) or linear and closed circular plasmid DNA; carbohydrates; proteins and peptides, including recombinant proteins such as for example cytokines (eg interleukins), trophic and growth or naturation factors (eg NGF, G-CSF, GM-CSF), enzymes, vaccines (eg HBsAg, gp120); vitamins, prostaglandins, drugs such as local anesthetics (e.g. procaine), antimalarial agents (e.g. chloroquine), compounds which need to cross the blood-brain barrier such as anti-parkinson agents (e.g. leva-DOPA), adrenergic receptor antagonists (e.g. propanolol), anti-neoplastic agents (e.g. doxorubicin), antihistamines, biogenic amines (e.g. dopamine), antidepressants (e.g. desipraminel, anticholinergics (e.g. atropine), antiarrhythmics (e.g. quinidine), antiemetics (e.g. chloroprimamine) and analgesics (e.g. codeine, morphine) or small molecular weight drugs such as cisplatin which enhance transfection activity, or prolong the life time of DNA in and outside the cells.

6. Document ID: US 6117632 A

L5: Entry 6 of 39

File: USPT

Sep 12, 2000

US-PAT-NO: 6117632
DOCUMENT-IDENTIFIER: US 6117632 A
TITLE: Peptides which enhance transport across tissues and methods of identifying and using the
same
DATE-ISSUED: September 12, 2000

US-CL-CURRENT: 435/6; 435/91.2

APPL-NO: 8/ 746411
DATE FILED: November 8, 1996

PARENT-CASE:
This application claims benefit to U.S. provisional application No. 60/006,461 filed Nov. 13,
1995.

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	APPL-DATE
IE	950864	November 10, 1995

IN: O'Mahony; Daniel Joseph

AB: A method of identifying a peptide which permits or facilitates the transport of
an active agent through a human or animal tissue. A predetermined amount of phage from a
random phage library or preselected phage library is plated unto or brought into contact
with a first side, preferably the apical side, of a tissue sample or polarized tissue cell
culture. At a predetermined time, the phage which is transported to a second side of the
tissue opposite the first side, preferably the basolateral side, is harvested to select
transported phage. This modified phage is amplified in a host. This cycle of events is
repeated (using the transported phage produced in the most recent cycle) a predetermined
number of times to obtain a selected phage library containing phage which can be transported
from the first side to the second side. Lastly, the identity of at least one peptide coded
by phage in the selected phage library is determined to identify a peptide which permits or
facilitates the transport of an active agent through a human or animal tissue.

L5: Entry 6 of 39

File: USPT

Sep 12, 2000

DOCUMENT-IDENTIFIER: US 6117632 A
TITLE: Peptides which enhance transport across tissues and methods of identifying and using the
same

DEPR:
As used herein, the term "drug" includes, without limitation, any pharmaceutically active agent.
Representative drugs include, but are not limited to, peptides or proteins, hormones, analgesics,
anti-migraine agents, anti-coagulant agents, anti-emetic agents, cardiovascular agents,
anti-hypertensive agents, narcotic antagonists, chelating agents, anti-anginal agents,
chemotherapy agents, sedatives, anti-neoplastics, prostaglandins and antidiuretic agents. Typical
drugs include peptides, proteins or hormones such as insulin, calcitonin, calcitonin gene
regulating protein, atrial natriuretic protein, colony stimulating factor, betaseron,
erythropoietin (EPO), interferons such as .alpha., .beta. or .gamma. interferon, somatropin,
somatotropin, somatostatin, insulin-like growth factor (somatomedins), luteinizing hormone
releasing hormone (LHRH), tissue plasminogen activator (TPA), growth hormone releasing hormone
(GHRH), oxytocin, estradiol, growth hormones, leuprolide acetate, factor VIII, interleukins such
as interleukin-2, and analogues thereof; analgesics such as fentanyl, sufentanil, butorphanol,
buprenorphine, levorphanol, morphine, hydromorphone, hydrocodone, oxymorphone, methadone,
lidocaine, bupivacaine, diclofenac, naproxen, paverin, and analogues thereof; anti-migraine
agents such as sumatriptan, ergot alkaloids, and analogues thereof; anti-coagulant agents such as
heparin, hirudin, and analogues thereof; anti-emetic agents such as scopolamine, ondansetron,
domperidone, metoclopramide, and analogues thereof, cardiovascular agents, anti-hypertensive
agents and vasodilators such as diltiazem, clonidine, nifedipine, verapamil,
isosorbide-5-mononitrate, organic nitrates, agents used in treatment of heart disorders, and
analogues thereof; sedatives such as benzodiazepines, phenothiozines, and analogues thereof;
narcotic antagonists such as naltrexone, naloxone, and analogues thereof; chelating agents such
as deferoxamine, and analogues thereof; anti-diuretic agents such as desmopressin, vasopressin,
and analogues thereof; anti-anginal agents such as nitroglycerine, and analogues thereof;
anti-neoplastics such as 5-fluorouracil, bleomycin, and analogues thereof; prostaglandins and
analogues thereof; and chemotherapy agents such as vincristine, and analogues thereof.
Representative drugs also include antisense oligonucleotides, genes, gene correcting hybrid
oligonucleotides, ribozymes, aptameric oligonucleotides, triple-helix froming oligonucleotides,
inhibitors of signal transduction pathways, tyrosine kinase inhibitors and DNA modifying agents.
As used herein, the term "drug" also includes, without limitation, systems for gene delivery and
gene therapeutics, including viral systems for gene delivery such as adenovirus,
adeono-associated virus, retroviruses, herpes simplex virus, sindbus virus, liposomes, cationic
lipids, dendrimers, imaging agents and enzymes.

7. Document ID: US 6106732 A

L5: Entry 7 of 39

File: USPT

Aug 22, 2000

US-PAT-NO: 6106732

DOCUMENT-IDENTIFIER: US 6106732 A
TITLE: Integral blood plasma or serum isolation, metering and transport device
DATE-ISSUED: August 22, 2000

US-CL-CURRENT: 210/767; 210/503, 210/504, 210/505, 210/508, 422/56, 422/57, 422/58, 436/169, 436/170, 436/177

APPL-NO: 9/ 060885
DATE FILED: April 16, 1998

IN: Johnston; James Bennett, Grady; Kenneth

AB: A process for separating plasma or serum from mammalian whole blood includes the steps of applying a sample of blood through a hydrophobically faced sample receiving hole positioned in a first upper layer of hydrophobic material to a first layer of fibrous hydrophilic material which has been impregnated with a blood agglutinating agent so that it acts to retain red blood cells but not plasma or serum and layer is sealed at its upper edges to the first layer of hydrophobic material and allowing the liquid portion of the sample to flow downwardly through the first layer of fibrous hydrophilic material into a second layer comprised of a different fibrous hydrophilic material which second layer is sealed at its lower edges to a second layer of hydrophobic material whereby it acts to retain the plasma or serum.

L5: Entry 7 of 39
File: USPT
Aug 22, 2000

DOCUMENT-IDENTIFIER: US 6106732 A
TITLE: Integral blood plasma or serum isolation, metering and transport device

DEPR:
It is anticipated that the following possible plasma components of plasma isolated and air dried in devices of this invention will similarly be essentially quantitatively recoverable: Alanine aminotransferase, Creatine kinase, Glutamate oxalacetate transaminase. Alkaline phosphatase, Plasma renin, Glucose-6-phosphate uridyl transferase, Plasma ACTH, Luteinizing hormone, Calcitonin, Cortisol, Catecholamines, Androstenedione, Atrial natiuretic factor, Glucagon, Progesterone, Testosterone, Estrogen and its metabolites, Estriol, Triglycerides, Ammonia, Vitamin C, Zinc, Antinuclear antibodies, Anti-DNA antibodies, Extractable nuclear antigen antibodies, Antimitochondrial antibodies, Anti-smooth muscle antibodies, Antithyroid antibodies, Thyroid-stimulating immunoglobulins, Cardiolipin antibodies, Rheumatoid factor, Acetylcholine receptor antibodies, Rubella antibodies, Anti-HIV antibodies, Anti-CMV antibodies, Hepatitis B surface antigen, EBV antibodies, RSV antibodies, Herpes simplex antibodies, Antifungal antibodies, Anticandida antibodies, Bacterial meningitis antigen, Lyme disease antibodies, Syphilis antibodies, CEA, AFP, hCG, ACTH, Prostatic acid phosphatase, Prostate specific antigen, Tissue polypeptide antigen, Tenagen (Tennessee Antigen), Pregnancy-specific glycoprotein, Serotonin, Amikacin, Caffeine, Carbamazepine, Chloramphenicol, Desipramine, Digoxin, Diisopyramide, Ethosuccinimide, Gentamicin, Imipramine, Lidocaine, Methotrexate, Phenobarbital, Phenytoin, Primidone, Procainamide, NAPA, Quinidine, Theophylline, Tobramycin, Valproic acid, Pseudo-cholinesterase, Mercury, Arsenic, Antimony, Selenium, and Bismuth.

8. Document ID: US 6107043 A

L5: Entry 8 of 39
File: USPT
Aug 22, 2000

US-PAT-NO: 6107043
DOCUMENT-IDENTIFIER: US 6107043 A
TITLE: Immortalized hepatocytes
DATE-ISSUED: August 22, 2000

US-CL-CURRENT: 435/6; 435/325, 623/23.64

APPL-NO: 9/ 246968
DATE FILED: February 9, 1999

PARENT-CASE:
This application is a continuation of U.S. Ser. No. 08/611,171, filed on Mar. 5, 1996, the contents of which is hereby incorporated by reference.

IN: Jauregui; Hugo O., Liu; Jin

AB: The invention features a virally-immortalized mammalian hepatocyte, which is derived from a normal liver cell, has differentiated hepatocyte-specific metabolic activity, has the ability to proliferate, and is nontumorigenic after prolonged culture.

L5: Entry 8 of 39
File: USPT
Aug 22, 2000

DOCUMENT-IDENTIFIER: US 6107043 A
TITLE: Immortalized hepatocytes

DEPR:
Normal primary porcine hepatocytes were transfected with SV40 DNA to create immortalized cells.
Stable cell lines were selected and maintained for more than 40 passages. Immortalized hepatocytes maintain differentiated liver-specific functions such as metabolic activity, in particular P450 enzyme activity (e.g, diazepam metabolism (TABLE 2), lidocaine metabolism, 7-EC metabolism (TABLE 3), and dealkylase activity (TABLE 1)) and glucuronidation activity (e.g., acetaminophen metabolism (TABLE 4)).

9. Document ID: US 6083763 A

L5: Entry 9 of 39
File: USPT

Jul 4, 2000

US-PAT-NO: 6083763
DOCUMENT-IDENTIFIER: US 6083763 A
TITLE: Multiplexed molecular analysis apparatus and method
DATE-ISSUED: July 4, 2000

US-CL-CURRENT: 436/518; 422/105, 422/112, 422/62, 422/63, 422/67, 422/68.1, 422/81, 435/286.1, 435/286.5, 435/286.6, 435/6, 436/43, 436/50, 436/524, 436/525, 436/527, 436/531

APPL-NO: 9/ 002170
DATE FILED: December 31, 1997

PARENT-CASE:
This application is based on US provisional application 60/034,627, filed Dec. 31, 1996, incorporated herein by reference.

IN: Balch; William J.

AB: A method and apparatus for analyzing molecular structures within a sample substance using an array having a plurality of test sites upon which the sample substance is applied. The invention is also directed to a method and apparatus for constructing molecular arrays having a plurality of test sites. The invention allows for definitive high throughput analysis of multiple analytes in complex mixtures of sample substances. A combinatorial analysis process is described that results in the creation of an array of integrated chemical devices. These devices operate in parallel, each unit providing specific sets of data that, when taken as a whole, give a complete answer for a defined experiment. This approach is uniquely capable of rapidly providing a high density of information from limited amounts of sample in a cost-effective manner.

L5: Entry 9 of 39
File: USPT
Jul 4, 2000

DOCUMENT-IDENTIFIER: US 6083763 A
TITLE: Multiplexed molecular analysis apparatus and method

DEPR:
Conversely, the format for a small molecule Universal Array can be inverted so that the macromolecular ligand becomes the capture probe. Thus, a Universal Array (Macromolecular Universal Array) may contain large macromolecules such as, without limitation, antibodies, proteins, polysaccachrides, peptides, or receptors as the immobilized capture probe. In turn, unique small molecule tags having a specific, high affinity association for the macromolecular biosites are covalently attached to various probes cognate to the analyte. These labeled probes now represent the bispecific component cognate to both the capture macromolecule and the target analyte. Some representative examples of small molecules (haptens or drugs) are listed in Table 1 below. This is only a partial list of commercially available antibodies to haptens, steroid hormones and other small molecule drugs. Examples of these bispecific, small molecule-labeled macromolecules include antibodies, receptors, peptides, oligonucleotides, dsDNA, ssDNA, RNA, polysaccharides, streptavidin, or lectins. A partial list of 48 representative compounds for which specific antibodies are available include: fluorescein; dinitrophenol; amphetamine; barbiturate; acetaminophen; acetohexamide; desipramine; lidocaine; digitoxin; chloroquinine; quinine; ritalin; phenobarbital; phenytoin; fentanyl; phencyclidine; methamphetamine; metaniphrine; digoxin; penicillin; tetrahydrocannibinol; tobramycin; nitrazepam; morphine; Texas Red; TRITC; primaquine; progesterone; bendazac; carbamazepine; estradiol; theophylline; methadone; methotrexate; aldosterone; norethisterone; salicylate; warfarin; cortisol; testosterone; nortrptyline; propanolol; estrone; androstenedione; digoxigenin; biotin; thyroxine; and triiodothyronine.

10. Document ID: US 6071910 A

L5: Entry 10 of 39
File: USPT
Jun 6, 2000

US-PAT-NO: 6071910
DOCUMENT-IDENTIFIER: US 6071910 A
TITLE: Use of agents to treat eosinophil-associated pathologies
DATE-ISSUED: June 6, 2000

US-CL-CURRENT: 514/235.5; 435/2, 435/243, 435/244, 435/260, 435/3, 435/962, 514/237.2, 514/255.01, 514/299, 514/563, 514/592, 514/593, 514/825, 514/885

APPL-NO: 8/ 985613
DATE FILED: December 5, 1997

PARENT-CASE:
CROSS-REFERENCE TO RELATED APPLICATION This application claims the benefit under 35 U.S.C. .sctn.119 (e) of U.S. Provisional Patent Application Ser. No. 60/032,416, filed on Dec. 5, 1996, which is incorporated herein by reference.

IN: Gleich; Gerald J., Bankers-Fulbright; Jennifer L.

AB: A therapeutic method comprising counteracting or preventing pathologies mediated by IL-5, including those characterized by eosinophil infiltration, degranulation and inflammation, by administering to a mammal in need of such therapy, one or more compounds that bind to the eosinophil sulfonylurea receptor, optionally in combination with one or more topical anesthetics and/or glucocorticoids.

L5: Entry 10 of 39
File: USPT
Jun 6, 2000

DOCUMENT-IDENTIFIER: US 6071910 A
TITLE: Use of agents to treat eosinophil-associated pathologies

DEPR:
One mechanism by which glucocorticoids exert their immunosuppressive effect is through the inhibition of the transcription factor NF.kappa.B (Scheinman, R. I., et al., Science, 270, 283 (1995) Auphan, N., et al., Science, 270, 286 (1995)). This inhibition is mediated through an

increase in the rate of synthesis of I.kappa.B.alpha., a cytosolic inhibitor of NF.kappa.B, and
has been documented in several T cell lines and a monocytic cell line. Because lidocaine and
glyburide mimic glucocorticoid activity in eosinophils, it is possible that these agents also act
through the upregulation of I.kappa.B.alpha.. Eosinophils are pretreated with dexamethasone,
lidocaine, and glyburide, using the concentration ranges described above, followed by stimulation
with IL-5 at 10:sup.-10 M. The I.kappa.B.alpha. protein levels are analyzed utilizing a
commercially available anti-I.kappa.B.alpha. antibody (Santa Cruz Biotechnology, Santa Cruz,
Calif.) and Western blotting. Normal donors with high levels of circulating eosinophils are
employed for these experiments. Initially, 1 .mu.M dexamethasone, 10.sup.-3 M lidocaine and
10.sup.-4 M glyburide are incubated with cells for up to 4 hours and then the level of
I.kappa.B.alpha. determined. The induction of NF.kappa.B DNA binding activity in eosinophils by
IL-5 is also determined, using procedures described by Scheinman et al. (Scheinman, R. I., et
al., Science, 270, 283 (1995)).

11. Document ID: US 6048711 A

L5: Entry 11 of 39
File: USPT
Apr 11, 2000

US-PAT-NO: 6048711
DOCUMENT-IDENTIFIER: US 6048711 A
TITLE: Human G-protein coupled receptor polynucleotides
DATE-ISSUED: April 11, 2000

US-CL-CURRENT: 435/69.1; 435/252.3, 435/254.11, 435/320.1, 435/325, 536/23.5

APPL-NO: 8/ 959381
DATE FILED: October 28, 1997

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	APPL-DATE
JP	8-286823	October 29, 1996

IN: Hinuma; Shuji, Fukusumi; Shoji, Kawamata; Yuji

AB: A novel G-protein coupled receptor protein, a partial peptide and their salts are
disclosed. DNA encoding the receptor protein, production of the receptor protein,
determination of a ligand to the receptor protein, a method for screening for compounds
which inhibit ligand binding to the receptor protein, a kit for screening for such compounds
are also disclosed. The receptor protein, its partial peptide and their salts are used for
screening for candidate compounds of drugs and the like.

L5: Entry 11 of 39
File: USPT
Apr 11, 2000

DOCUMENT-IDENTIFIER: US 6048711 A
TITLE: Human G-protein coupled receptor polynucleotides

DEPR:
The above prophylactic and therapeutic drugs can further contain, for example, buffers (e.g.,
phosphate buffer, sodium acetate buffer), smoothing agents (e.g., benzalkonium chloride, procaine
hydrochloride, etc.), stabilizers (e.g., human serum albumin, polyethylene glycol, etc.),
preservatives (e.g., benzyl alcohol, phenol, etc.), antioxidants, and the like. The injectable
preparation thus produced is normally filled in a suitable ampoule. Since the pharmaceutical
composition thus obtained is safe and low toxic, it can be administered to a human being and
another mammal (e.g., rat, rabbit, sheep, pig, cattle, cat, dog, monkey, etc.). Although the
amount of the DNA of the present invention to be administered is varied according to particular
subjects, organs to be treated, symptoms, routes of administration, etc., in general, for oral
administration to an adult human being (as 60 kg body weight), the DNA is administered in an
amount of about 0.1 mg/day to about 100 mg/day, preferably about 1.0 mg/day to about 50 mg/day,
more preferably about 1.0 mg to about 20 mg. For parenteral administration to an adult human
being (as 60 kg body weight), it is advantageous to administer the composition in the form of an
injectable preparation in an amount of about 0.01 mg/day to about 30 mg/day, preferably about 0.1
mg/day to about 20 mg/day, more preferably about 0.1 mg/day to about 10 mg/day, though the single
dosage is varied according to particular subjects, organs to be treated, symptoms, routes of
administration, etc. As for other animals, the composition can be administered in the above
amount with converting it into that for the body weight of 60 kg.

12. Document ID: US 5965157 A

L5: Entry 12 of 39
File: USPT
Oct 12, 1999

US-PAT-NO: 5965157
DOCUMENT-IDENTIFIER: US 5965157 A
TITLE: Method to provide for production of hair coloring pigments in hair follicles
DATE-ISSUED: October 12, 1999

US-CL-CURRENT: 424/450; 424/70.1, 424/70.6

APPL-NO: 8/ 858970
DATE FILED: May 20, 1997

PARENT-CASE:
This application is a divisional of U.S. application Ser. No. 08/486,520, filed Jun. 7, 1995, now
U.S. Pat. No. 5,753,263, which is a continuation-in-part of International Application No.
PCT/US94/03634, filed Apr. 1, 1994, designating the United States, which is a
continuation-in-part of U.S. application Ser. No. 08/181,471, filed Jan. 13, 1994, now U.S. Pat.
No. 5,641,508, which is a continuation-in-part of U.S. application Ser. No. 08/041,553, filed
Apr. 2, 1992, now abandoned, all of which are incorporated by reference

(including drawings).

IN: Li; Lingna, Lishko; Valeryi

AB: The present invention provides a method to specifically target hair follicles
with formulations which effect the production of hair coloring pigments in the follicle.
Liposomal formulations for this purpose are disclosed.

L5: Entry 12 of 39

File: USPT

Oct 12, 1999

DOCUMENT-IDENTIFIER: US 5965157 A
TITLE: Method to provide for production of hair coloring pigments in hair follicles

DEPR:
The therapeutic composition of the present invention can include pharmaceutically acceptable
salts of the components therein (e.g., protein, nucleic acid or other compounds).
Pharmaceutically acceptable salts include the acid addition salts (formed with the free amino
groups of the polypeptide) that are formed wish inorganic acids such as, for example,
hydrochloric or phosphoric acids, or such organic acids as acetic, tartaric, mandelic and the
like. Salts formed with the free carboxyl groups can also be derived from inorganic bases such
as, for example, sodium, potassium, ammonium, calcium or ferric hydroxides, and such organic
bases as isopropylamine, trimethylamine, 2-ethylamino ethanol, histidine, procaine and the like.

13. Document ID: US 5919135 A

L5: Entry 13 of 39

File: USPT

Jul 6, 1999

US-PAT-NO: 5919135
DOCUMENT-IDENTIFIER: US 5919135 A
TITLE: System and method for treating cellular disorders in a living being
DATE-ISSUED: July 6, 1999

US-CL-CURRENT: 600/407; 378/4, 600/408, 600/419, 600/420, 604/4.01, 604/507

APPL-NO: 8/ 807646
DATE FILED: February 28, 1997

IN: Lemelson; Jerome

AB: A system and method is provided for the treatment of hypreproliferative diseases,
such as cancer, using real-time computer control to visualize, to position and to operate
drug infusing and imaging devices within the body of the patient. The invention employs a
computerized imaging system (such as CAT scan, MRI imaging, ultrasound imaging, infrared,
X-ray, UV/visible light fluorescence, Raman spectroscopy, single photon emission computed
tomography or microwave imaging) to sense the position of a drug infusing catheter within
the body. In a preferred embodiment, the invention provides real-time computer control to
maintain and adjust the position of an infusion catheter and/or the position of the patient
relative to the infusion catheter; and also provides real-time computer control of the
operation of the infusion catheter based on images and/or computer models of the dispersion
of one or more cytotoxic or other drugs or therapeutically active agents through the
vascular bed of the neoplastic tissue being treated. In other preferred embodiments of the
invention, vasoconstrictive drugs are applied locally based on computer modeling of blood
flow patterns in order to channel blood flow carrying the cytotoxic drug or other
therapeutic agent into the neoplastic tissue, and to minimize exposure of healthy tissue to
such drugs.

L5: Entry 13 of 39

File: USPT

Jul 6, 1999

DOCUMENT-IDENTIFIER: US 5919135 A
TITLE: System and method for treating cellular disorders in a living being

DEPR:
Given the data thus accumulated concerning the location of blood vessels supplying the tumor, the
extent (volume and area) of the tumor and the pattern of blood supply, the optimum dose of
cytotoxic drug can be calculated using known fluid mechanical modeling techniques, such as
potential flow modeling, or distributed parameter modeling Runge-Kutta simulation to model the
dispersion of various concentration/time dose patterns of drug through the tumor, combined with
clinical data relating to the response of the particular type of tumor to the chosen cytotoxic
drug. Among the cytotoxic drugs that can be employed therapeutically using the system and method
of this invention are alkylating agents, enzyme inhibitors, proliferation inhibitors, lytic
agents, DNA synthesis inhibitors, membrane permeability modifiers, DNA intercalators,
antimetabolites, or the like. Illustrative drugs include: cisplatin (Platinol), doxorubicin
hydrochloride (Adriamycin), bleomycin sulfate (Blenoxane), fluorouracil, vincristine sulfate
(Oncovin), vinblastine sulfate (Velban) VP-16, chlorambucil (Leukeran), melphalan (Alkeran),
busulfan (Myleran), carmustine [BCNU] (BiCNU), lomustine [CCNU] (CeeNU), streptozotocin,
thiotepa, dacarbazine (DTICDOME), methotrexate, cytarabine (Cytosar-U), azaribine, mercaptopurine
(Purinethol), thioguanine, actinomycin D, plicamycin (Mithracin), mitomycin-C (Mutamycin),
asparaginase MSD (Elspar), procarbazine hydrochloride (Matulane), prednisone, prednisilone,
triamcinolone, testosterone, estrogen, insulins, and hydroxyurea (Hydrea). Other drugs of
interest include radiosensitizers, such as SR-2508 and misonidazole: hyperthermia sensitizers,
such as lidocaine and marcaine, bioreductive agents, such as mitomycin benzotriazine dioxides and
nitroheterocyclic compounds such as benznidazole.

14. Document ID: US 5914126 A

L5: Entry 14 of 39

File: USPT

Jun 22, 1999

US-PAT-NO: 5914126
DOCUMENT-IDENTIFIER: US 5914126 A
TITLE: Methods to deliver macromolecules to hair follicles
DATE-ISSUED: June 22, 1999

US-CL-CURRENT: 424/450; 424/70.1, 514/2, 514/44

APPL-NO: 8/ 858469
DATE FILED: May 20, 1997

PARENT-CASE:
This application is a divisional of U.S. application Ser. No. 08/486,520 filed Jun. 7, 1995, now
U.S. Pat. No. 5,753,263, which is a continuation-in-part of PCT/US94/03634 filed Apr. 1, 1994
which is a continuation-in-part of U.S. Ser. No. 08/181,471 filed Jan. 13, 1994 and now U.S. Pat.
No. 5,641,508 which is a continuation-in-part of U.S. Ser. No. 08/041,553 filed Apr. 2, 1993 and
now abandoned. The contents of the above applications are incorporated herein by reference in
their entirety.

IN: Li; Lingna, Lishko; Valeryi

AB: The invention provides methods to deliver macromolecules to hair follicles
selectively using formulations of these macromolecules in liposomal separations.

L5: Entry 14 of 39

File: USPT

Jun 22, 1999

DOCUMENT-IDENTIFIER: US 5914126 A
TITLE: Methods to deliver macromolecules to hair follicles

DEPR:
The therapeutic composition of the present invention can include pharmaceutically acceptable
salts of the components therein (e.g., protein, nucleic acid or other compounds).
Pharmaceutically acceptable salts include the acid addition salts (formed with the free amino
groups of the colypeptide) that are formed with inorganic acids such as, for example,
hydrochloric or phosphoric acids, or such organic acids as acetic, tartaric, mandelic and the
like. Salts formed with the free carboxyl groups can also be derived from inorganic bases such
as, for example, sodium, potassium, ammonium, calcium or ferric hydroxides, and such organic
bases as isopropylamine, trimethylamine, 2-ethylamino ethanol, histidine, procaine and the like.

15. Document ID: US 5910488 A

L5: Entry 15 of 39

File: USPT

Jun 8, 1999

US-PAT-NO: 5910488
DOCUMENT-IDENTIFIER: US 5910488 A
TITLE: Plasmids suitable for gene therapy
DATE-ISSUED: June 8, 1999

US-CL-CURRENT: 514/44; 435/320.1, 435/375, 435/69.1

APPL-NO: 8/ 564313
DATE FILED: December 1, 1995

PARENT-CASE:
The present application is a 371 of PCT/US94/06069, filed May 27, 1994 and a continuation-in-part
of U.S. patent application No. Ser. No. 08/074,344 filed Jun. 7, 1993, now abandoned.

PCT-DATA:

APPL-NO	DATE-FILED	PUB-NO	PUB-DATE	371-DATE	102(E)-DATE
PCT/US94/06069	May 27, 1994	WO94/29469	Dec 22, 1994	Dec 1, 1995	Dec 1, 1995

IN: Nabel; Gary J., Nabel; Elizabeth G., Lew; Denise, Marquet; Magda

AB: The invention provides vectors adapted for use in transferring into tissue or
cells of an organism genetic material encoding one or more cistrons capable of expressing
one or more immunogenic or therapeutic peptides and related methods.

L5: Entry 15 of 39

File: USPT

Jun 8, 1999

DOCUMENT-IDENTIFIER: US 5910488 A
TITLE: Plasmids suitable for gene therapy

DEPR:
Patients diagnosed with melanoma are admitted to a clinical research center. The tumor nodule to
be injected is identified and its borders measured prior to injection. A needle biopsy is
performed to confirm the diagnosis. Tissue is stored as frozen sections for further
immunohistochemical analysis and PCR. In addition, this nodule and other control (untreated)
nodules are imaged by CT immediately prior to the procedure, and the size quantitated. The skin
overlying the tumor nodule is sterilized and anesthetized using 0.01% lidocaine. For gene
transfer, a 22-gauge needle is used to inject the DNA liposome complex which is prepared as
follows: 10 minutes prior to delivery, 0.1 ml of plasmid DNA (0.05-50 mg/ml) in lactated Ringer's
solution is added to 0.1 ml of DMRIE/DOPE liposome solution (0.15-15 .mu.M). Each component is
stored separately in sterile vials and certified as acceptable by the FDA. The solution is left
at room temperature for 5-10 minutes and 0.8 ml of sterile lactated-Ringer's is added to the
liposome DNA solution. The optimal composition of the DNA/liposome complex has been established
for each batch by titration of DNA concentration and liposome concentration independently on

human melanoma or renal cell carcinoma in culture, and confirmed by direct injection into
melanoma or other tumors in experimental animals prior to use. Each component, the liposome
preparation and the DNA, is tested for contaminants and toxicity and used according to previously
established guidelines from the FDA. The liposome solution and DNA are aliquoted in individual
sterile vials mixed under sterile conditions.

16. Document ID: US 5869243 A

L5: Entry 16 of 39
File: USPT
Feb 9, 1999

US-PAT-NO: 5869243
DOCUMENT-IDENTIFIER: US 5869243 A
TITLE: Immortalized hepatocytes
DATE-ISSUED: February 9, 1999

US-CL-CURRENT: 435/6; 435/325

APPL-NO: 8/ 611171
DATE FILED: March 5, 1996

IN: Jauregui; Hugo O., Liu; Jin

AB: The invention features a virally-immortalized mammalian hepatocyte, which is
derived from a normal liver cell, has differentiated hepatocyte-specific metabolic activity,
has the ability to proliferate, and is nontumorigenic after prolonged culture.

L5: Entry 16 of 39
File: USPT
Feb 9, 1999

DOCUMENT-IDENTIFIER: US 5869243 A
TITLE: Immortalized hepatocytes

DEPR:
Normal primary porcine hepatocytes were transfected with SV40 DNA to create immortalized cells.
Stable cell lines were selected and maintained for more than 40 passages. Immortalized
hepatocytes maintain differentiated liver-specific functions such as metabolic activity, in
particular P450 enzyme activity (e.g, diazepam metabolism (TABLE 2), lidocaine metabolism, 7-EC
metabolism (TABLE 3), and dealkylase activity (TABLE 1)) and glucuronidation activity (e.g.,
acetaminophen metabolism (TABLE 4)).

17. Document ID: US 5840486 A

L5: Entry 17 of 39
File: USPT
Nov 24, 1998

US-PAT-NO: 5840486
DOCUMENT-IDENTIFIER: US 5840486 A
TITLE: Mutant DNA encoding protein phosphatase 1 G-subunit
DATE-ISSUED: November 24, 1998

US-CL-CURRENT: 435/6; 435/195, 435/252.3, 435/320.1, 435/325, 435/91.2, 530/350, 536/23.1,
536/24.3

APPL-NO: 8/ 537342
DATE FILED: October 2, 1995

IN: Pedersen; Oluf, Bj.o slashed.rb.ae butted.k; Christian, Hansen; Lars, Cohen;
Patricia Townsend

AB: The present invention relates to a mutant DNA sequence encoding protein
phosphatase 1 G-subunit, wherein a mutation of G to T occurs in the position of codon 905 of
the coding sequence, a method of detecting a mutation in the gene encoding protein
phosphatase 1 G-subunit, as well as a diagnostic composition and a test kit for use in the
method.

L5: Entry 17 of 39
File: USPT
Nov 24, 1998

DOCUMENT-IDENTIFIER: US 5840486 A
TITLE: Mutant DNA encoding protein phosphatase 1 G-subunit

DEPR:
In the fasting state at 0800 after an overnight fast a percutaneous biopsy (about 500 mg) of
vastus lateralis muscle was taken under local anesthesia (1% lidocaine without epinephrine) about
20 cm above the knee using a modified Bergstrom needle. Muscle biopsies were homogenized in a 4M
guanidinium thiocyanate solution, and subsequently total RNA was isolated on an Applied
Biosystems 341 Nucleic Acid Purification System (Applied Biosystems Inc., Foster City, Calif.).

18. Document ID: US 5753263 A

L5: Entry 18 of 39
File: USPT
May 19, 1998

US-PAT-NO: 5753263
DOCUMENT-IDENTIFIER: US 5753263 A
TITLE: Method to deliver compositions conferring resistance to alopecia to hair follicles
DATE-ISSUED: May 19, 1998

US-CL-CURRENT: 424/450; 424/70.1, 514/2, 514/44

APPL-NO: 8/ 486520
DATE FILED: June 7, 1995

PARENT-CASE:
This application is a continuation-in-part of pending International Application No.
PCT/US94/03634, filed Apr. 1, 1994, designating the United States, which is a

continuation-in-part of U.S. application U.S. Ser. No. 08/181,471, filed Jan. 13, 1994, now U.S.
Pat. No. 5,641,508, which is a continuation-in-part of U.S. application Ser. No. 08/041,553,
filed Apr. 2, 1993, now abandoned, all of which are incorporated by reference (including
drawings).

IN: Lishko; Valeryi, Li; Lingna

AB: The invention describes a method to deliver a composition selectively to hair
follicles using a liposomal formulation. Proteins which are cell cycle inhibitors are
products of the multi-drug resistance gene or the recombinant materials for their production
are targeted to hair follicles by encapsulating them in liposomes.

L5: Entry 18 of 39

File: USPT

May 19, 1998

DOCUMENT-IDENTIFIER: US 5753263 A
TITLE: Method to deliver compositions conferring resistance to alopecia to hair follicles

DEPR:
The therapeutic composition of the present invention can include pharmaceutically acceptable
salts of the components therein (e.g., protein, nucleic acid or other compounds).
Pharmaceutically acceptable salts include the acid addition salts (formed with the free amino
groups of the polypeptide) that are formed with inorganic acids such as, for example,
hydrochloric or phosphoric acids, or such organic acids as acetic, tartaric, mandelic and the
like. Salts formed with the free carboxyl groups can also be derived from inorganic bases such
as, for example, sodium, potassium, ammonium, calcium or ferric hydroxides, and such organic
bases as isopropylamine, trimethylamine, 2-ethylamino ethanol, histidine, procaine and the like.

19. Document ID: US 5641508 A

L5: Entry 19 of 39

File: USPT

Jun 24, 1997

US-PAT-NO: 5641508
DOCUMENT-IDENTIFIER: US 5641508 A
TITLE: Method for delivering melanin to hair follicles
DATE-ISSUED: June 24, 1997

US-CL-CURRENT: 424/450; 424/70.1, 424/70.2, 424/70.6, 514/2

APPL-NO: 8/ 181471
DATE FILED: January 13, 1994

PARENT-CASE:
CROSS-REFERENCE TO RELATED APPLICATIONS This application is related to copending application Ser.
No. 08/041,553, filed Apr. 2, 1993, the disclosures of which are hereby incorporated by
reference.

IN: Li; Lingna, Lishko; Valeryi K.

AB: The present invention describes a method for targeted and specific delivery of
beneficial compounds, including dyes, proteins, and nucleic acids for gene therapy, to hair
follicle cells using liposomes encapsulating the beneficial compound. Particularly preferred
methods describe delivery of tyrosinase to the hair follicle for the purpose of improving
hair color or condition, either by encapsulating the compound in liposomes, or by
encapsulating a nucleic acid capable of expressing the protein in liposomes.

L5: Entry 19 of 39

File: USPT

Jun 24, 1997

DOCUMENT-IDENTIFIER: US 5641508 A
TITLE: Method for delivering melanin to hair follicles

DEPR:
The therapeutic composition of the present invention can include pharmaceutically acceptable
salts of the components therein (e.g., protein, nucleic acid or other compounds).
Pharmaceutically acceptable salts include the acid addition salts (formed with the free amino
groups of the polypeptide) that are formed with inorganic acids such as, for example,
hydrochloric or phosphoric acids, or such organic acids as acetic, tartaric, mandelic and the
like. Salts formed with the free carboxyl groups can also be derived from inorganic bases such
as, for example, sodium, potassium, ammonium, calcium or ferric hydroxides, and such organic
bases as isopropylamine, trimethylamine, 2-ethylamino ethanol, histidine, procaine and the like.

20. Document ID: US 5597578 A

L5: Entry 20 of 39

File: USPT

Jan 28, 1997

US-PAT-NO: 5597578
DOCUMENT-IDENTIFIER: US 5597578 A
TITLE: TGF-.beta. protein compositions for inhibition of cell proliferation
DATE-ISSUED: January 28, 1997

US-CL-CURRENT: 424/422; 424/423, 424/426, 424/484, 514/12, 514/21, 530/350, 530/356, 530/399

APPL-NO: 8/ 234509
DATE FILED: April 28, 1994

PARENT-CASE:
This is a continuation, of application Ser. No. 07/852,828, filed Mar. 13, 1992, abandoned; which
is a continuation of application Ser. No. 07/627,602, filed Dec. 11, 1990, now abandoned; which
is a continuation of application Ser. No. 07/405,534, filed Sep. 11, 1989, now abandoned.

IN: Brown; Dennis M., Luck; Edward, Twardzik; Daniel R., Purchio; Anthony F.

AB: Antiproliferative compositions are provided which are capable of sustained release of an antiproliferative agent, particularly a TGF-.beta., at a site proximal to a target cell. The compositions are effective in inhibiting proliferation of the target cell, particularly when used in combination with a vasoconstrictive agent.

L5: Entry 20 of 39

File: USPT

Jan 28, 1997

DOCUMENT-IDENTIFIER: US 5597578 A
TITLE: TGF-.beta. protein compositions for inhibition of cell proliferation

DEPR:
Other drugs for use in combination with the antiproliferative agents are drugs which retard diffusion away from the site of implantation of the antiproliferative agent. This serves to reduce physiological insult and enhance therapeutic gain. Of particular interest as antidiffusants are agents which restrict the regional vasculature, either as to growth and/or passage opening, e.g., vasoconstrictive or sympathomimetic agents. These agents may include catecholamines, e.g., epinephrine and norepinephrine; ergot alkaloids; prostaglandins; angiotensin, or the like. Other agents which can affect tissue architecture include enzymes which injure the stroma, such as the peptidases e.g. papain, chymopapain, trypsin, amylase, collagenase and chymotrypsin; or agents affecting cellular permeability may be employed, such as non-ionic detergents, e.g., Tween 80; amphotericin B; dimethylsulfoxide; and anesthetics, such as procaine.
Other agents which may find use include those involved in DNA repair inhibition and DNA or RNA synthesis inhibition.

21. Document ID: US 5588962 A

L5: Entry 21 of 39

File: USPT

Dec 31, 1996

US-PAT-NO: 5588962
DOCUMENT-IDENTIFIER: US 5588962 A
TITLE: Drug treatment of diseased sites deep within the body
DATE-ISSUED: December 31, 1996

US-CL-CURRENT: 604/507; 128/898, 604/19, 604/508

APPL-NO: 8/ 219108
DATE FILED: March 29, 1994

IN: Nicholas; Peter M., Sahatjian; Ronald A., Barry; James J.

AB: A diseased site, such as vascular dilatation site, is treated by first locally delivering to the site an agent that is effective to localize a desired drug and then systematically administering the drug.

L5: Entry 21 of 39

File: USPT

Dec 31, 1996

DOCUMENT-IDENTIFIER: US 5588962 A
TITLE: Drug treatment of diseased sites deep within the body

DEPR:
Various ailments can be treated. For example, hemodialysis access management can be facilitated by delivering cimetidine to a dialysis shunt site during balloon dilatation of the site and subsequently systemically administering lidocaine to manage pain at the site. Lidocaine forms a complex with cimetidine which exhibits reduced uptake by erythrocytes. (Shibasaki et al., J. Pharmacobiodyn., 11(12) 1988, pp. 785-93.) By using cimetidine as the localizing agent, the efficacy of lidocaine will be improved at the site by reducing the physiological degradation of the drug by erythrocytes. In other examples, tumors may be treated with anticancer drugs. For example, suicide genes, DNA that is activated to kill cells when it couples with specific species, can be localized by locally delivering the coupling species at a tumor site and systemically administering the gene. Moreover, rather than localizing a therapeutic drug, an agent may be delivered locally to localize a systematically administered diagnostic drug, such as a radiopaque or radioactive labelled drug species. Other drugs and treatments are discussed in Sahatjian et al. "Drug Delivery", U.S. Ser. No. 08/097,248, filed Jul. 23, 1993, the entire contents of which is hereby incorporated by reference. Drugs may be delivered that reduce the restenosis, e.g. by killing cells that proliferate to create the occlusion.

22. Document ID: US 5556580 A

L5: Entry 22 of 39

File: USPT

Sep 17, 1996

US-PAT-NO: 5556580
DOCUMENT-IDENTIFIER: US 5556580 A
TITLE: Liposome continuous size reduction method and apparatus
DATE-ISSUED: September 17, 1996

US-CL-CURRENT: 264/4.3; 264/4.1, 424/450, 425/5, 436/829

APPL-NO: 8/ 437906
DATE FILED: May 10, 1995

PARENT-CASE:
This application is a continuation of U.S. Ser. No. 08/132,159, filed Oct. 5, 1993 and now abandoned, which is a continuation of U.S. Ser. No. 07/576,174, filed Aug. 30, 1990 and now abandoned, which-in-turn is a continuation of U.S. Ser. No. 07/036,980, filed Apr. 16, 1987 and now abandoned.

IN: Suddith; Robert L.

AB: A method of extruding liposomes from liposomal material comprising extruding the liposomal material through a frit, and apparatus for extrusion.

L5: Entry 22 of 39

File: USPT

Sep 17, 1996

DOCUMENT-IDENTIFIER: US 5556580 A
TITLE: Liposome continuous size reduction method and apparatus

DEPR:
Biologically active agents ("bioactive agent") as used herein include but are not limited to
antibacterial compounds such as gentamycin, antiviral agents such as rifampacin, antifungal
compounds such as amphotericin B, anti-parasitic compound such as antimony derivatives,
tumoricidal compounds such as adriamycin, anti-metabolites, peptides, proteins such as albumin,
toxins such as diptheriatoxin, enzymes such as catalase, polypeptides such as cyclosporin A,
hormones such as estrogen, hormone antagonists, neurotransmitters such as acetylcholine,
neurotransmitter antagonists, glycoproteins such as hyaluronic acid, lipoproteins such as
alpha-lipoprotein, immunoglobulins such as IgG,immunomodulators such as interferon or
interleukin, vasodilators, dyes such as Arsenazo III, radiolabels such as .sup.14 C, radio-opaque
compounds such as .sup.90 Te, fluorescent compounds such as carboxy fluorescein, receptor binding
molecules such as estrogen receptor protein, anti-inflammatories such as indomethacin,
antiglaucoma agents such as pilocarpine, mydriatic compounds, local anesthetics such as
lidocaine, narcotics such as codeine, vitamins such as alpha-tocopherol, nucleic acids such as
thymine, polynucleotides such as RNA polymers, psychoactive or anxiolytic agents such as
diazepam, mono-di- and polysaccharides, etc. A few of the many specific compounds that can be
entrapped are pilocarpine, a polypeptide growth hormone such as human growth hormone, bovine
growth hormone and porcine growth hormone, indomethacin, diazepam, alpha-tocopherol itself and
tylosin. Antifungal compounds include miconazole, terconazole, econazole, isoconazole,
tioconazole, bifonazole, clotrimazole, ketoconazole, butaconazole, itraconazole, oxiconazole,
fenticonazole, nystatin, naftifine, amphotericin B, zinoconazole and ciclopirox alemine,
preferably miconazole or terconazole. The entrapment of two or more compound simultaneously may
be especially desirable where such compounds produce complementary or synergistic effects. The
amounts of drugs administered in liposomes will generally be the same as with the free drug;
however, the frequency of dosing may be reduced.

23. Document ID: US 5330689 A

L5: Entry 23 of 39

File: USPT

Jul 19, 1994

US-PAT-NO: 5330689
DOCUMENT-IDENTIFIER: US 5330689 A
TITLE: Entrapment of water-insoluble compound in alpha tocopherol-based vesicles
DATE-ISSUED: July 19, 1994

US-CL-CURRENT: 264/4.3; 264/4.6, 424/450, 436/829

APPL-NO: 8/ 039941
DATE FILED: March 29, 1993

PARENT-CASE:
RELATED COPENDING APPLICATIONS This application is a division of copending application Ser. No.
07/599,290, filed Oct. 17, 1990, now U.S. Pat. No. 4,234,634 which is a division of copending
U.S. patent application Ser. No. 280,551, filed Dec. 6, 1988, now U.S. Pat. No. 5,041,278, which
is a division of application Ser. No. 911,138, filed Sep. 24, 1986, now U.S. Pat. No. 4,861,580
and a continuation-in-part of application Ser. No. 786,740, filed Oct. 15, 1985 and now
abandoned.

IN: Janoff; Andrew S., Bolesak; Lois E., Weiner; Alan L., Tremblay; Paul A.,
Bergamini; Michael V. W., Suddith; Robert L.

AB: Methods and compositions are described for the preparation of alpha-tocopherol
vesicles, the bilayers of which comprise a salt form of an organic acid derivative of
alpha-tocopherol such as the Tris salt form of alpha-tocopherol hemisuccinate. The method is
rapid and efficient and does not require the use of organic solvents. The alpha-tocopherol
vesicles may be used to entrap compounds which are insoluble in aqueous solutions. Such
preparations are especially useful for entrapping bioactive agents of limited solubility,
thus enabling administration in vivo.

L5: Entry 23 of 39

File: USPT

Jul 19, 1994

DOCUMENT-IDENTIFIER: US 5330689 A
TITLE: Entrapment of water-insoluble compound in alpha tocopherol-based vesicles

DEPR:
Compounds which are bioactive agents can be entrapped within the alpha-tocopherol vesicles of the
present invention. Such compounds include but are not limited to antibacterial compounds such as
gentamycin, antiviral agents such as rifampacin, antifungal compounds such as amphoteracin B,
anti-parasitic compounds such as antimony derivatives, tumoricidal compounds such as adriamycin,
anti-metabolites, peptides, proteins such as albumin, toxins such as diptheria toxin, enzymes
such as catalase, polypsprides such as cyclosporin A, hormones such as estrogen, hormone
antagonists, neurotransmitters such as acetylcholine, neurotransmitter antagonists, glycoproteins
such as hyaluronic acid, lipoproteins such as alpha-lipoprotein, immunoglobulins such as IgG,
immunomodulators such as interferon or interleukin, vasodilators, dyes such as Arsenazo III,
radiolabels such as .sup.14 C, radio-opaque compounds such as .sup.90 Te fluorescent compounds
such as carboxy fluorscein, receptor binding molecules such as estrogen receptor protein,
anti-inflammatories such as indomethacin, antiglaucoma agents such as pilocarpine, mydriatic
compounds, local anesthetics such as lidocaine, narcotics such as codeine, vitamins such as
alpha-tocopherol, nucleic acids such as thymine, polynucleotides such as RNA polymers,
psychoactive or anxiolytic agents such as diazepam, mono- di- and polysaccharides, etc. A few of
the many specific compounds that can be entrapped are pilocarpine, a

polypeptide growth hormone
such as human growth hormone, bovine growth hormone and porcine growth hormone, indomethacin,
diazepam, alpha-tocopherol itself and tylosin. Antifungal compounds include miconazole,
terconazole, econazole, isoconazole, tioconazole, bifonazole, clotrimazole, ketoconazole,
butaconazole, itraconazole, oxiconazole, fenticonazole, nystatin, naftifine, amphotericin B,
zinoconazole and ciclopirox olamine, preferably miconazole or terconazole. The entrapment of two
or more compounds simultaneously may be especially desirable where such compounds produce
complementary or synergistic effects. The amounts of drugs administered in liposomes will
generally be the same as with the free drug; however, the frequency of dosing may be reduced.

24. Document ID: US 5288852 A

L5: Entry 24 of 39

File: USPT

Feb 22, 1994

US-PAT-NO: 5288852
DOCUMENT-IDENTIFIER: US 5288852 A
TITLE: Human tumor necrosis factor polypeptides
DATE-ISSUED: February 22, 1994

US-CL-CURRENT: 530/351; 424/85.1, 435/69.5, 435/69.7, 530/395, 930/144

APPL-NO: 8/ 084445
DATE FILED: July 1, 1993

PARENT-CASE:
This application is a continuation of now abandoned application Ser. No. 07/089,134, filed Aug.
25, 1987, which is a division of now abandoned application Ser. No. 708,846, filed Mar. 5, 1985.

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	APPL-DATE
JP	59-43617	March 6, 1984
JP	59-82653	April 23, 1984
JP	59-172307	August 17, 1984

IN: Yamada; Masaaki, Furutani; Yasuji, Notake; Mitsue, Yamagishi; Juniti

AB: A novel cloned DNA encoding a human tumor necrosis factor (TNF), a vector having
said DNA inserted thereinto, a host transformed with said vector and a novel human TNF
polypeptide, and processes for producing them.

L5: Entry 24 of 39

File: USPT

Feb 22, 1994

DOCUMENT-IDENTIFIER: US 5288852 A
TITLE: Human tumor necrosis factor polypeptides

BSPR:
The modified human TNF polypeptides mean polypeptides derived from the allelic mutants of the DNA
encoding human TNF polypeptide (allelic mutant polypeptide), a polypeptide resulting from
addition of an amino acid or peptide (consisting of two or more amino acids) to the N-terminus or
C-terminus of the human TNF polypeptide or the allelic mutant polypeptide, a polypeptide
resulting from deletion of one or more amino acids from the human TNF polypeptide or the allelic
mutant-polypeptide (for example, deletion of 4 amino acids from the N-terminus of human TNF
polypeptide as shown in Section III-1, (6) below), derivatives such as esters, acyl-derivatives
or acid amides, formed by using a functional group in the molecule, an amino residue of
N-terminus or a carboxy residue of the C-terminus, and its salt formed by using amino residues or
carboxy residues with, for example, sodium hydroxide, potassium hydroxide, arginine, caffeine,
procaine, hydrochloric acid, gluconic acid and so on.

25. Document ID: US 5288503 A

L5: Entry 25 of 39

File: USPT

Feb 22, 1994

US-PAT-NO: 5288503
DOCUMENT-IDENTIFIER: US 5288503 A
TITLE: Cryogel oral pharmaceutical composition containing therapeutic agent
DATE-ISSUED: February 22, 1994

US-CL-CURRENT: 424/497; 424/78.1, 424/78.12, 424/78.13

APPL-NO: 7/ 899369
DATE FILED: June 16, 1992

PARENT-CASE:
This is a division of application Ser. No. 07/821,627, filed Jan. 16, 1992, now U.S. Pat. No.
5,260,066.

IN: Wood; Louis L., Calton; Gary J.

AB: An oral pharmaceutical composition comprising a hydrophobic resin or ion exchange
resin which has a therapeutic agent bound thereto forming an agent-resin complex is
disclosed. The complex is coated with a water-permeable diffusion barrier of poly(vinyl
alcohol) polymer cryogel.

L5: Entry 25 of 39

File: USPT

Feb 22, 1994

DOCUMENT-IDENTIFIER: US 5288503 A
TITLE: Cryogel oral pharmaceutical composition containing therapeutic agent

BSTL:

TABLE I _____ Therapeutic Agent Additives to the PVA Cryogel Bandages for Controlled Release

_____ Antibiotics including those: inhibiting cell wall formation: bacampicillin, bacitracin, cephalosporins (in- cluding cephalothin, cefazolin, cephapirin, cephradine, cephalexin, cefadroxil, cefaclor, cefamandole cefuroxime, defonicid, ceforanide, cefoxitin, cefotaxime, ceftizoxime, cefoperazone, ceftazidime, ceftriaxone, moxalactam, imipenem/ cilastatin), cycloserine, penicillins (including penicillin G, penicillin G benzathine, cloxacillin, dicloxacillin, methicillin, nafcillin, oxacillin, penicillin V, ampicillin, amoxicillin, bacampi- cillin, syclacillin, carbenicillin, tircarcillin, mezlocillin, piperacillin, azlocillin, amdinocillin, penicillins combined with clavulanic acid), vancomycin, other .beta.-lactam antibiotics; disrupting DNA metabolism: actinomycin D, doxorubicin, mitomycin C, novobiocin, plicamycin, rifampin, bleomycin; inhibiting protein biosynthesis: amikacin, chloramphenicol, clindamycin, erythromycin, oleandomycin, gentamicin, kanamycin, lincomycin, neomycin, netilmicin, paromomycin, spectinomycin, streptomycin, tetracyclines (including tetracycline, oxy- tetracycline, demeclocycline, doxycycline, methacycline, minocycline,), tobramycin, troleandomycin; altering cellular membrane functions: amphotericin B, colistin, nystatin, polymyxin, griseofulvin; quinolones including: nalidixic acid, pipemidic acid, cinoxacin, norfloxacin, ciprofloxacin, pefloxacin, fleroxacin, enoxacin, ofloxacin, tosufloxacin, lomefloxacin, stereoisomers of the quinolones; Antimicrobials including: sulfacetamide, sulfisoxazole diolamine, salts of monovalent and divalent cations, inorganic and organic silver salts, inorganic and organic zinc salts; Antipathogenic polypeptides including: cecropionins, mangainins; antibacterial and antifungal agents including: iodine, povidone iodine, boric acid, sodium borate, oxydale, potassium permanganate, ethanol, isopropanol, formalin, cresol, dimazole, siccanin, phenyliodoundecynoate, hexachlorophene, resorcin, benzethonin chloride, sodium lauryl sulfate, mercuric chloride, meclocycline, mercurochrome, chlorhexidine gluconate, alkyl- polyaminoethylglycine hydrochloride, benzalkonium chloride, nitrofurazone, nystatin, acesulfamin, clotrimazole, sulfamethizole, tolnaftate, pentamycin, amphotericin B, pyrrolnitrin, undecylenic acid, miconazole, trichomycin, variotin, haloprogin, and dimazole; Antiviral Agents including: idoxuridine, trifluridine, vidarabine, DDCI, acyclovir, gancyclovir, pyrimethamine, trisulfapyrimidine, flucytosine, AZT; Steroidal Anti-inflammatory including: cortisone, hydrocortisone, prednisolone, prednisone, dexamethasone, fluocinolone, fluorinated-corticoids Nonsteroidal Anti-inflammatory Drugs including: diclofenac, ibuprofen, naproxen, ketoprofen, S-ketoprofen; Anti-cancer Drugs including: aclacinomycin, retinoic acid, methotrexate, doxorubicin, IL-1.alpha., IL-2, IL-2.beta., IL-3, IL-4, bleomycin, mitomycin, taxol, cis-platinum, bisantrene, CCNU, activated cytoxan, DTIC, HMM, melphalan, mithromycin, procarbazine, VM25, VP16, tamoxifen, plicamycin, 5-fluorouracil, daunorubicin, mitomycin C, tegafur, carmofur, pipobroman, peplomycin; Antihistamines including: naphazoline, pheniramine, cromolyn, homochlorcyclizine hydrochloride, diphenhydramine hydrochloride, chlorpheniramine, diphenylimidazole, glycyrrhetic acid, tranilast, and ketotifen; Anti-clotting Agents including: TPA, urokinase, streptokinase, pro-urokinase; Anti-tissue Damage Agents including: superoxide dismutase; Immune Modulators including: lymphokines, monokines, interferon .alpha., .beta., .tau.-1b, .alpha.-n3, .alpha.-2b, .alpha.-2b; Growth Regulators including: IL-2, tumor necrosis factor, epithelial growth factor, somatrem, fibronectin, GM-CSF, CSF, platelet derived growth factor, somatotropin, rG-CSF, epidermal growth factor, IGF-1; Monoclonal and Poly-clonal Antibodies including those active against: venoms, toxins, tumor necrosis factor, bacteria; Hormones including epinephrine, levarterenol, thyroxine, thyroglubulin, oxytocin, vosopressin, ACTH, somatotropin, thyrotropin, insulin, parathyrin, calcitonin; Immunosuppressives including: cyclosporin, Thrombolytic Agents including: tissue plasminogen activator, streptokinase, pro-urokinase, urokinase, Vitamins including: vitamins A, B and its subvitamins, C, D, E, F, G, G, J, K, N, P, PP, T, U and their subspecies; Amino Acids including: arginine, histidine, proline, lysine, methionine, alanine, phenylalanine, aspartic acid, glutamic acid, glutamine, threonine, tryptophan, glycine, isoleucine, leucine; Prostaglandins including: E.sub.1, E.sub.2, F.sub.2.alpha., I.sub.2 ; Enzymes including: pepsin, pancreatin, rennin, papain, trypsin, pancrelipase, chymopapain, bromelain, chymotrypsin, streptokinase, urokinase, tissue plasminogen activator, fibrinolysin, desoxyribonuclease, sutilains, collagenase, asparaginase, heparin; Buffers and Salts including: NaCl, cations including: Na.sup.+, K.sup.+, Ca.sup.++, Mg.sup.++, Zn.sup.++, NH.sub.4.sup.+ triethanolamine, anions including: phosphate, sulfate, chloride, citrate, ascorbate, acetate, borate, carbonate ions; Preservatives including: benzalkonium chloride, Na or K bisulfite, Na or K thiosulfate, parabans; Vasodilators including: nitroglycerin, 1,2,3-propanetriolmononitrate, 1,2,3-propanetriolnitrate and their ester derivatives, isosorbide dinitrate, isosorbide-5-mononitrate, pentaerythritol tetranitrate, papaverine hydrochloride, hepronicate, molsidomine, nicomol, simfibrate, diltiazem hydrochloride, cinnarizine, dipyridamole, trapidil, trimetazidine hydrochloride, carbocromene, prenylamine lactate, dilazep dihydrochloride; Anti-arrhythmic agents including: pindolol, disopyramide, bupranolol hydrochloride, trichlormethiazide, furosemide, prazosin hydrochloride, metoprolol tartrate, carteolol hydrochloride, oxprenolol hydrochloride, and propranolol hydrochloride; Cardiotonics including: metildigoxin, caffeine, dopamine hydrochloride, dobutamine hydrochloride, octopamine hydrochloride, diprophylline, ubidecarenon, digitalis, digoxin; Antihypertensives including clonidine, nifedipine, nicardipine, verapamil; Local Anesthetics including: lidocaine, benzocaine, ethyl aminobenzoate, procaine hydrochloride, dibucaine, procaine; Hypotensive diuretics including: mefruside, penflutizide, bumetamide, hydrothiazide, bentroflumethiazide, reserpine; Hypnotics and sedatives including: methaqualone, glutethimide, flurazepam, bromovalerylurea, flurazepam hydrochloride, haloxazolam, traizolam, phenobarbital, chloral hydrate, nimetazepam, estazolam; Central nervous system agents including: levodopa, fluphenzine, flutazolam, phenobarbital, methylphenobarbital, thioridazine, diazepam, benzbromarone, clocapraminehydrochloride, clotiazepam, chlorpromazine, haloperidol, lithium carbonate; Antitubercular agents including: sulfadimethoxine, sulfisoxazole, sulfisomidine, ethambutor hydrochloride, isoniazide, calcium paraaminosalicylate; Post-cerebral embolism agents including: nicardipine hydrochloride, cinepazide maleate, pentoxifylline, ifenprodil

tartrate; Antiulcer
agents including: aceglutamide aluminum, cetraxate hydrochloride, pirenzepine hydrochloride,
cimetidine, L-glutamine, gefarnate; and any stereoisomer of these compounds, and the pharma-
ceutically acceptable salts of these compounds, such compound used singly or in combination of
more than one compound, properly chosen.

The release of therapeutic agents from the bandage has been found to be further controllable by including
insoluble particles capable of adsorbing or forming salts with the therapeutic agent in the
bandage. The release of therapeutic agents from such bandages was found to be slowed and
maintained at a relatively constant rate, as compared to the release of therapeutic agents from
bandages not containing insoluble particles. The inclusion of insoluble particles is an important
aspect of embodiments in which the characteristic therapeutic agent release kinetics are desired.

26. Document ID: US 5234634 A

L5: Entry 26 of 39

File: USPT

Aug 10, 1993

US-PAT-NO: 5234634
DOCUMENT-IDENTIFIER: US 5234634 A
TITLE: Method for preparing alpha-tocopherol vesicles
DATE-ISSUED: August 10, 1993

US-CL-CURRENT: 264/4.1; 424/1.21, 424/450, 428/402.2, 436/829, 514/458, 514/913

APPL-NO: 7/ 599290
DATE FILED: October 17, 1990

PARENT-CASE:
RELATED COPENDING APPLICATIONS This application is a division of copending application Ser. No.
280,551, filed Dec. 6, 1988, now U.S. Pat. No. 5,041,278, which is a division of copending
application Ser. No. 911,138, filed Sep. 24, 1986, now U.S. Pat. No. 4,861,850 and a
continuation-in-part of copending application Ser. No. 786,740, filed Oct. 15, 1985 and now
abandoned.

IN: Janoff; Andrew S., Bolesak; Lois E., Weiner; Alan L., Tremblay; Paul A.,
Bergamini; Michael V. W.

AB: Methods and compositions are described for the preparation of alpha-tocopherol
vesicles, the bilayers of which comprise a salt form of an organic acid derivative of
alpha-tocopherol such as the Tris salt form of alpha-tocopherol hemisuccinate. The method is
rapid and efficient and does not require the use of organic solvents. The alpha-tocopherol
vesicles may be used to entrap compounds which are insoluble in aqueous solutions. Such
preparations are especially useful for entrapping bioactive agents of limited solubility,
thus enabling administration in vivo.

L5: Entry 26 of 39

DOCUMENT-IDENTIFIER: US 5234634 A
TITLE: Method for preparing alpha-tocopherol vesicles

DEPR:
According to one embodiment of the present invention, liposomes can be prepared using the
tris-salt form of alpha-tocopherol hemisuccinate as follows: about 1 to 400 mg of the tris-salt
form of alpha-tocopherol hemisuccinate is added per ml of aqueous buffer containing 0.01 M
Tris-HCl, 0.14 M NaCl. The mixture is shaken and a milky suspension of alpha-tocopherol
hemisuccinate vesicles forms. The vesicles may be pelleted by centrifugation and washed
repeatedly with aqueous buffer. Suspension of alpha-tocopherol hemisuccinate multilamellar
vesicles (AHS-MLVs) may be sonicated to form alpha-tocopherol hemisuccinate small unilamellar
vesicles (AHS-SUVs). The vesicles are unstable in the presence of divalent cations; i.e., upon
exposure to divalent cations the entrapped aqueous compartment and water-soluble compounds are
released. Thus, the aqueous medium used in the preparation or during storage of the vesicles
should be essentially free of divalent cations. The compounds which are entrapped according to
the method of the present invention may be used in various ways. For example, if the compound is
a bioactive agent, the alpha-tocopherol vesicle-entrapped compound may be administered in vivo.
This facilitates the in vivo delivery of bioactive agents which are normally insoluble or
sparingly soluble in aqueous solutions. Entrapment in vesicles composed of the salt form of
organic acid derivatives of alpha-tocopherol enables ease in the administration of such insoluble
compounds at a higher dose: volume ratio. In fact, the alpha-tocopherol vesicles of the present
invention are particularly advantageously used in vivo because the vesicles may be used to entrap
one or more bioactive agents for delivery in vivo. Furthermore, the vesicles of the present
invention offer an advantage over conventional lipid vesicles or liposomes when used in vivo
because they can be prepared without using organic solvents. Compounds which are bioactive agents
can be entrapped within the alpha-tocopherol vesicles of the present invention. Such compounds
include but are not limited to antibacterial compounds such as gentamycin, antiviral agents such
as rifampacin, antifungal compounds such as amphoteracin B, anti-parasitic compounds such as
antimony derivatives, tumoricidal compounds such as adriamycin, anti-metabolites, peptides,
proteins such as albumin, toxins such as diptheriatoxin, enzymes such as catalase, polypeptides
such as cyclosporin A, hormones such as estrogen, hormone antagonists, neurotransmitters such as
acetylcholine, neurotransmitter antagonists, glycoproteins such as hyaluronic acid, lipoproteins
such as alpha-lipoprotein, immunoglobulins such as IgG, immunomodulators such as interferon or
interleuken, vasodilators, dyes such as Arsenazo III, radiolabels such as .sup.14 C, radio-opaque
compounds such as .sup.90 Te, fluorescent compounds such as carboxy fluorescein, receptor binding
molecules such as estrogen receptor protein, anti-inflammatories such as indomethacin,
antiglaucoma agents such as pilocarpine, mydriatic compounds, local anesthetics such as
lidocaine, narcotics such as codeine, vitamins such as alpha-tocopherol, nucleic acids such as
thymine, polynucleotides such as RNA polymers, psychoactive or

anxiolytic agents such as
diazepam, mono- di- and polysaccharides, etc. A few of the many specific compounds that can be
entrapped are pilocarpine, a polypeptide growth hormone such as human growth hormone, bovine
growth hormone and porcine growth hormone, indomethacin, diazepam, alpha-tocopherol itself and
tylosin. Antifungal compounds include miconazole, terconazole, econazole, isoconazole,
tioconazole, bifonazole, clotrimazole, ketoconazole, butaconazole, itraconazole, oxiconazole,
fenticonazole, nystatin, naftifine, amphotericin B, zinoconazole and ciclopirox olamine,
preferably miconazole or terconazole. The entrapment of two or more compounds simultaneously may
be especially desirable where such compounds produce complementary or synergistic effects. The
amounts of drugs administered in liposomes will generally be the same as with the free drug;
however, the frequency of dosing may be reduced.

27. Document ID: US 5171578 A

L5: Entry 27 of 39

File: USPT

Dec 15, 1992

US-PAT-NO: 5171578
DOCUMENT-IDENTIFIER: US 5171578 A
TITLE: Composition for targeting, storing and loading of liposomes
DATE-ISSUED: December 15, 1992

US-CL-CURRENT: 424/450; 264/4.1, 436/547, 436/548, 436/829, 514/2, 514/21, 514/8, 530/391.1,
530/402, 530/812

APPL-NO: 7/ 711294
DATE FILED: June 6, 1991

PARENT-CASE:
This is a divisional application of copending application Ser. No. 07/399,642, filed Aug. 28,
1989, U.S. Pat. No. 5,047,245 which is a divisional application of Ser. No. 06/941,913, filed
Dec. 15, 1986, which is a U.S. Pat. No. 4,885,172 continuation-in-part of copending application
Ser. No. 811,037, Abn. which in turn is a continuation in-part of copending application Ser. No.
749,161, filed Jun. 26, 1985, Abn. and copending application Ser. No. 759,419, filed Jul. 26,
1985, U.S. Pat. No. 4,880,635.

IN: Bally; Marcel B., Loughrey; Helen, Cullis; Pieter R.

AB: The present invention describes a composition consisting of liposomes covalently
or non-covalently coupled to the glycoprotein streptavidin. The streptavidin may
additionally be coupled to biotinated proteins such as Immunoglobulin G or monoclonal
antibodies., The liposomes of the invention may have a transmembrane potential across their
membranes, and may be dehydrated. In addition, the composition may contain ionizable
bioactive agents such as antineoplastic agents, and may be used in diagnostic assays.

L5: Entry 27 of 39

File: USPT

Dec 15, 1992

DOCUMENT-IDENTIFIER: US 5171578 A
TITLE: Composition for targeting, storing and loading of liposomes

DEPR:
Compounds which are bioactive agents can be entrapped within the liposomes of the present
invention. Such compounds include but are not limited to antibacterial compounds such as
gentamycin, antiviral agents such as rifampacin, antifungal compounds such as amphotericin B,
anti-parasitic compounds such as antimony derivatives, tumoricidal compounds such as adriamycin,
anti-metabolites, peptides, proteins such as albumin, toxins such as diptheriatoxin, enzymes such
as catalase, polypeptides such as cyclosporin A, hormones such as estrogen, hormone antagonists,
neurotransmitters such as acetylcholine, neurotransmitter antagonists, glycoproteins such as
hyaluronic acid, lipoproteins such as alpha-lipoprotein, immunoglobulins such as IgG,
immunomodulators such as interferon or interleuken, vasodilators, dyes such as Arsenazo III,
radiolabels such as .sup.14 C, radio-opaque compounds such as .sup.90 Te, fluorescent compounds
such as carboxy fluorscein, receptor binding molecules such as estrogen receptor protein,
anti-inflammatories such as indomethacin, antigalucoma agents such as pilocarpine, mydriatic
compounds, local anesthetics such as lidocaine, narcotics such as codeine, vitamins such as
alpha-tocopherol, nucleic acids such as thymine, polynucleotides such as RNA polymers,
psychoactive or anxiolytic agents such as diazepam, mono- di- and polysaccharides, etc. A few of
the many specific compounds that can be entrapped are pilocarpine, a polypeptide growth hormone
such as human growth hormone, bovin growth hormone and porcine growth hormone, indomethacin,
diazepam, alpha-tocopherol itself and tylosin. Antifungal compounds include miconazole,
terconazole, econazole, isoconazole, tioconazole, bifonazole, clotrimazole, ketoconazole,
butaconazole, itraconazole, oxiconazole, fenticonazole, nystatin, naftifine, amphotericin B,
zinoconazole and ciclopirox olamine, preferably miconazole or terconazole, The entrapment of two
or more compounds simultaneously may be especially desirable where such compounds produce
complementary or synergistic effects. The amounts of drugs administered in liposomes will
generally be the same as with the free drug; however, the frequency of dosing may be reduced.

28. Document ID: US 5047245 A

L5: Entry 28 of 39

File: USPT

Sep 10, 1991

US-PAT-NO: 5047245
DOCUMENT-IDENTIFIER: US 5047245 A
TITLE: Novel composition for targeting, storing and loading of liposomes
DATE-ISSUED: September 10, 1991

US-CL-CURRENT: 424/450; 264/4.6, 436/829

APPL-NO: 7/ 399642

DATE FILED: August 28, 1989

IN: Bally; Marcel B., Loughrey; Helen, Gullis; Pieter R.

AB: This is a divisional application of copending application Ser. No. 941,913, filed
Dec. 15, 1986, which is now U.S. Pat. No. 4,885,172, which is a continuation-in-part of
copending application Ser. No. 811,037, which in turn is a continuation-in-part of copending
application Ser. No. 749,161, filed June 26, 1985, both now abandoned and copending
application Ser. No. 759,419, filed July 26, 1985 now U.S. Pat. No. 4,870,635., The present
invention describes a composition consisting of liposomes covalently or non-covalently
coupled to the glycoprotein streptavidin. The streptavidin may additionally be coupled to
biotinated proteins such as Immunoglobulin G or monoclonal antibodies. The liposomes of the
invention may have a transmembrane potential across their membranes, and may be dehydrated.
In addition, the composition may contain ionizable bioactive agents such as antineoplastic
agents, and may be used in diagnostic assays.

L5: Entry 28 of 39

File: USPT

Sep 10, 1991

DOCUMENT-IDENTIFIER: US 5047245 A
TITLE: Novel composition for targeting, storing and loading of liposomes

DEPR:
Compounds which are bioactive agents can be entrapped within the liposomes of the present
invention. Such compounds include but are not limited to antibacterial compounds such as
gentamycin, antiviral agents such as rifampacin, antifungal compounds such as amphotericin B,
anti-parasitic compounds such as antimony derivatives, tumoricidal compounds such as adriamycin,
anti-metabolites, peptides, proteins such as albumin, toxins such as diptheriatoxin, enzymes such
as catalase, polypeptides such as cyclosporin A, hormones such as estrogen, hormone antagonists,
neurotransmitters such as acetylcholine, neurotransmitter antagonists, glycoproteins such as
hyaluronic acid, lipoproteins such as alpha-lipoprotein, immunoglobulins such as IgG,
immunomodulators such as interferon or interleuken, vasodilators, dyes such as Arsenazo III,
radiolabels such as .sup.14 C, radio-opaque compounds such as .sup.90 Te, fluorescent compounds
such as carboxy fluorscein, receptor binding molecules such as estrogen receptor protein,
anti-inflammatories such as indomsthacin, antigalucoma agents such as pilocarpine, mydriatic
compounds, local anesthetics such as lidocaine, narcotics such as codeine, vitamins such as
alpha-tocopherol, nucleic acids such as thymine, polynucleotides such as RNA polymers,
psychoactive or anxiolytic agents such as diazepam, mono- di- and polysaccharides, etc. A few of
the many specific compounds that can be entrapped are pilocarpine, a polypeptide growth hormone
such as human growth hormone, bovin growth hormone and porcine growth hormone, indomethacin,
diazepam, alpha-tocopherol itself and tylosin. Antifungal compounds include miconazole,
terconazole, econazole, isoconazole, tioconazole, bifonazole, clotrimazole, ketoconazole,
butaconazole, itraconazole, oxiconazole, fenticonazole, nystatin, naftifine, amphotericin B,
zinoconazole and ciclopirox olamine, preferably miconazole or terconazole, The entrapment of two
or more compounds simultaneously may be especially desirable where such compounds produce
complementary or synergistic effects. The amounts of drugs administered in liposomes will
generally be the same as with the free drug; however, the frequency of dosing may be reduced.

29. Document ID: US 5041278 A

L5: Entry 29 of 39

File: USPT

Aug 20, 1991

US-PAT-NO: 5041278
DOCUMENT-IDENTIFIER: US 5041278 A
TITLE: Alpha tocopherol-based vesicles
DATE-ISSUED: August 20, 1991

US-CL-CURRENT: 424/1.21; 264/4.1, 264/4.6, 424/450, 424/9.4, 424/9.6, 428/402.2, 436/829,
514/458, 514/885, 514/913

APPL-NO: 7/ 280551
DATE FILED: December 6, 1988

PARENT-CASE:
RELATED COPENDING APPLICATIONS This application is a division of copending application Ser. No.
911,138, filed Sept. 24, 1986, now U.S. Pat. No. 4,861,580 and a continuation-in-part of
copending application Ser. No. 786,740, filed Oct. 15, 1985 and now abandoned.

IN: Janoff; Andrew S., Bolesak; Lois E., Weiner; Alan L., Tremblay; Paul A.,
Bergamini; Michael V. W.

AB: Methods and compositions are described for the preparation of alpha-tocopherol
vesicles, the bilayers of which comprise a salt form of an organic acid derivative of
alpha-tocopherol such as the Tris salt form of alpha-tocopherol hemisuccinate. The method is
rapid and efficient and does not require the use of organic solvents. The alpha-tocopherol
vesicles may be used to entrap compounds which are insoluble in aqueous solutions. Such
preparations are especially useful for entrapping bioactive agents of limited solubility,
thus enabling administration in vivo.

L5: Entry 29 of 39

File: USPT

Aug 20, 1991

DOCUMENT-IDENTIFIER: US 5041278 A
TITLE: Alpha tocopherol-based vesicles

DEPR:
Compounds which are bioactive agents can be entrapped within the alpha-tocopherol vesicles of the
present invention. Such compounds include but are not limited to antibacterial compounds such as
gentamycin, antiviral agents such as rifampacin, antifungal compounds such as amphoteracin B,

anti-parasitic compounds such as antimony derivatives, tumoricidal compounds such as adriamycin,
anti-metabolites, peptides, proteins such as albumin, toxins such as diptheriatoxin, enzymes such
as catalase, polypeptides such as cyclosporin A, hormones such as estrogen, hormone antagonists,
neurotransmitters such as acetylcholine, neurotransmitter antagonists, glycoproteins such as
hyaluronic acid, lipoproteins such as alpha-lipoprotein, immunoglobulins such as IgG,
immunomodulators such as interferon or interleuken, vasodilators, dyes such as Arsenazo III,
radiolabels such as .sup.14 C, radio-opaque compounds such as .sup.90 Te, fluorescent compounds
such as carboxy fluorescein, receptor binding molecules such as estrogen receptor protein,
anti-inflammatories such as indomethacin, antiglaucoma agents such as pilocarpine, mydriatic
compounds, local anesthetics such as lidocaine, narcotics such as codeine, vitamins such as
alpha-tocopherol, nucleic acids such as thymine, polynucleotides such as RNA polymers,
psychoactive or anxiolytic agents such as diazepam, mono- di- and polysaccharides, etc. A few of
the many specific compounds that can be entrapped are pilocarpine, a polypeptide growth hormone
such as human growth hormone, bovine growth hormone and porcine growth hormone, indomethacin,
diazepam, alphatocopherol itself and tylosin. Antifungal compounds include miconazole,
terconazole, econazole, isoconazole, tioconazole, bifonazole, clotrimazole, ketoconazole,
butaconazole, itraconazole, oxicanazole, fenticonazole, nystatin, naftifine, amphotericin B,
zinoconazole and ciclopirox olamine, preferably miconazole or terconazole. The entrapment of two
or more compounds simultaneously may be especially desirable when such compounds produce
complementary or synergistic effects. The amounts of drugs administered in liposomes will
generally be the same as with the free drug; however, the frequency of dosing may be reduces.

30. Document ID: US 4978332 A

L5: Entry 30 of 39

File: USPT

Dec 18, 1990

US-PAT-NO: 4978332
DOCUMENT-IDENTIFIER: US 4978332 A
TITLE: Treatments employing vasoconstrictive substances in combination with cytotoxic agents for
introduction into cellular lesion areas
DATE-ISSUED: December 18, 1990

US-CL-CURRENT: 604/19; 514/930

DISCLAIMER DATE: 20031028
APPL-NO: 7/ 101599
DATE FILED: September 28, 1987

IN: Luck; Edward E., Brown; Dennis M.

AB: A pharmaceutical composition and method of treating cellular disorders involving
abnormal solid cellular growths which comprises administering a pharmaceutical composition
containing cytotoxic agents in combination with a vasoconstrictive drug. Enhanced
effectiveness of the composition is observed, with reduced cytotoxic effects on cells
distant from the site of introduction. Agents may be included to enhance therapeutic gain
and reduce adverse affects to normal tissue.

L5: Entry 30 of 39

File: USPT

Dec 18, 1990

DOCUMENT-IDENTIFIER: US 4978332 A
TITLE: Treatments employing vasoconstrictive substances in combination with cytotoxic agents for
introduction into cellular lesion areas

DEPR:
Various drugs may be employed which are used in chemotherapy and act as alkylating agents, enzyme
inhibitors, proliferation inhibitors, lytic agents, DNA synthesis inhibitors, membrane
permeability modifiers, DNA intercalators, antimetabolites, or the like. Illustrative drugs
include: cisplatin (Platinol), doxorubicin hydrochloride (Adriamycin), bleomycin sulfate
(Blenoxane), fluorouracil, vincristine sulfate (Oncovin), vinblastine sulfate (Velban) VP-16,
chlorambucil (Leukeran), melphalan (Alkeran), busulfan (Myleran), carmustine [BCNU] (BiCNU),
lomustine [CCNU] (CeeNU), streptozotocin, thiotepa, dacarbazine (DTICDOME), methotrexate,
cytarabine (Cytosar-U), azaribine, mercaptopurine (Purinethol), thioguanine, actinomycin D,
plicamycin (Mithracin), mitomycin-C (Mutamycin), asparaginase MSD (Elspar), procarbazine
hydrochloride (Matulane), prednisone, prednisilone, triamcinolone, testosterone, estrogen,
insulins, and hydroxyurea (Hydrea). Other drugs of interest include radiosensitizers, such as
SR-2508 and misonidazole: hyperthermia sensitizers, such as lidocaine and marcaine: bioreductive
agents, such as mitomycinc benzotriazine dioxides and nitroheterocyclic compounds such as
benznidazole. See Carter and Livingston, Drugs Available to Treat Cancer, In Principles of Cancer
Treatment (Carter et al., eds.) Chapter 10, pp. 111-145, 1982, McGraw-Hill, Inc., N.Y.

31. Document ID: US 4914131 A

L5: Entry 31 of 39

File: USPT

Apr 3, 1990

US-PAT-NO: 4914131
DOCUMENT-IDENTIFIER: US 4914131 A
TITLE: Antiviral pharmaceutical preparations and methods for their use
DATE-ISSUED: April 3, 1990

US-CL-CURRENT: 514/626

APPL-NO: 7/ 338448
DATE FILED: April 14, 1989

PARENT-CASE:
This application is a continuation of U.S. application Ser. No. 067,230 filed June 29, 1987, now
abandoned, which is a division of Ser. No. 939,513, filed Oct. 22, 1986, now U.S. Pat. No.

4,757,088, which is a division of Ser. No. 587,398, filed Mar. 8, 1984, now U.S. Pat. No.
4,628,063.

IN: Haines; Harold G., Dickens; Caroline B.

AB: The present invention relates to a method and pharmaceutical composition for
treating herpes group virus infections in mammals, and in particular, in humans, by
administering an effective antiviral amount of lidocaine or a pharmaceutically acceptable
salt thereof.

L5: Entry 31 of 39

File: USPT

Apr 3, 1990

DOCUMENT-IDENTIFIER: US 4914131 A
TITLE: Antiviral pharmaceutical preparations and methods for their use

BSPR:
Schmidt et al. (Experentia V. 273, pp 261-262) have shown that lidocaine is able to inhibit DNA
synthesis in cell cultures, and that this inhibition is probably a result of the complexing of
lidocaine with membranous structures in the cells which thereby interferes with the site of DNA
synthesis. VorHees et al. (U.S. Pat. No. 4,181,725) have shown that lidocaine can be used in an
ointment in a topical treatment of humans for proliferative skin diseases such as psoriasis.

32. Document ID: US 4885172 A

L5: Entry 32 of 39

File: USPT

Dec 5, 1989

US-PAT-NO: 4885172
DOCUMENT-IDENTIFIER: US 4885172 A
TITLE: Composition for targeting, storing and loading of liposomes
DATE-ISSUED: December 5, 1989

US-CL-CURRENT: 424/417; 264/4.3, 424/450

APPL-NO: 6/ 941913
DATE FILED: December 15, 1986

PARENT-CASE:
This is a continuation-in-part of copending application Ser. No. 811,037 , filed Dec. 18, 1985,
now abandoned , which in turn is a continuation-in-part of copending application Ser. No.
749,161, now abandoned, filed June 26, 1985, and copending application Ser. No. 759,419, filed
July 26, 1985.

IN: Bally; Marcel B., Loughrey; Helen, Cullis; Pieter R.

AB: The present invention describes a composition consisting of liposomes covalently
or non-covalently coupled to the glycoprotein streptavidin. The streptavidin may
additionally be coupled to biotinated proteins such as Immunoglobulin G or monoclonal
antibodies., The liposomes of the invention may have a transmembrane potential across their
membranes, and may be dehydrated. In addition, the composition may contain ionizable
bioactive agents such as antineoplastic agents, and may be used in diagnostic assays.

L5: Entry 32 of 39

File: USPT

Dec 5, 1989

DOCUMENT-IDENTIFIER: US 4885172 A
TITLE: Composition for targeting, storing and loading of liposomes

DEPR:
Compounds which are bioactive agents can be entrapped within the liposomes of the present
invention. Such compounds include but are not limited to antibacterial compounds such as
gentamycin, antiviral agents such as rifampacin, antifungal compounds such as amphotericin B,
anti-parasitic compounds such as antimony derivatives, tumoricidal compounds such as adriamycin,
anti-metabolites, peptides, proteins such as albumin, toxins such as diptheriatoxin, enzymes such
as catalase, polypeptides such as cyclosporin A, hormones such as estrogen, hormone antagonists,
neurotransmitters such as acetylcholine, neurotransmitter antagonists, glycoproteins such as
hyaluronic acid, lipoproteins such as alpha-lipoprotein, immunoglobulins such as IgG,
immunomodulators such as interferon or interleuken, vasodilators, dyes such as Arsenazo III,
radiolabels such as .sup.14 C, radio-opaque compounds such as .sup.90 Te, fluorescent compounds
such as carboxy fluorscein, receptor binding molecules such as estrogen receptor protein,
anti-inflammatories such as indomethacin, antigalucoma agents such as pilocarpine, mydriatic
compounds, local anesthetics such as lidocaine, narcotics such as codeine, vitamins such as
alpha-tocopherol, nucleic acids such as thymine, polynucleotides such as RNA polymers,
psychoactive or anxiolytic agents such as diazepam, mono- di- and polysaccharides, etc. A few of
the many specific compounds that can be entrapped are pilocarpine, a polypeptide growth hormone
such as human growth hormone, bovin growth hormone and porcine growth hormone, indomethacin,
diazepam, alpha-tocopherol itself and tylosin. Antifungal compounds include miconazole,
terconazole, econazole, isoconazole, tioconazole, bifonazole, clotrimazole, ketoconazole,
butaconazole, itraconazole, oxiconazole, fenticonazole, nystatin, naftifine, amphotericin B,
zinoconazole and ciclopirox olamine, preferably miconazole or terconazole, The entrapment of two
or more compounds simultaneously may be especially desirable where such compounds produce
complementary or synergistic effects. The amounts of drugs administered in liposomes will
generally be the same as with the free drug; however, the frequency of dosing may be reduced.

33. Document ID: US 4861580 A

L5: Entry 33 of 39

File: USPT

Aug 29, 1989

US-PAT-NO: 4861580
DOCUMENT-IDENTIFIER: US 4861580 A
TITLE: Composition using salt form of organic acid derivative of alpha-tocopheral
DATE-ISSUED: August 29, 1989

US-CL-CURRENT: 424/1.21; 264/4.1, 264/4.3, 264/4.6, 424/450, 424/9.4, 424/9.42, 428/402.2, 436/829, 514/458, 514/913, 549/410

APPL-NO: 6/ 911138
DATE FILED: September 24, 1986

PARENT-CASE:
RELATED COPENDING APPLICATIONS This application is a continuation-in-part of copending patent application Ser. No. 786,740, filed Oct. 15, 1985, now abandoned.

IN: Janoff; Andrew S., Bolcsak; Lois E., Weiner; Alan L., Tremblay; Paul A., Bergamini; Michael V. W., Suddith; Robert L.

AB: Methods and compositions are described for the preparation of alpha-tocopherol vesicles, the bilayers of which comprise a salt form of an organic acid derivative of alpha-tocopherol such as the Tris salt form of alpha-tocopherol hemisuccinate. The method is rapid and efficient and does not require the use of organic solvents. The alpha-tocopherol vesicles may be used to entrap compounds which are insoluble in aqueous solutions. Such preparations are especially useful for entrapping bioactive agents of limited solubility, thus enabling administration in vivo.

L5: Entry 33 of 39
File: USPT
Aug 29, 1989

DOCUMENT-IDENTIFIER: US 4861580 A
TITLE: Composition using salt form of organic acid derivative of alpha-tocopheral

DEPR:
Compounds which are bioactive agents can be entrapped within the alpha-tocopherol vesicles of the present invention. Such compounds include but are not limited to antibacterial compounds such as gentamycin, antiviral agents such as rifampacin, antifungal compounds such as amphoteracin B, anti-parasitic compounds such as antimony derivatives, tumoricidal compounds such as adriamycin, anti-metabolites, peptides, proteins such as albumin, toxins such as diptheriatoxin, enzymes such as catalase, polypeptides such as cyclosporin A, hormones such as estrogen, hormone antagonists, neurotransmitters such as acetylcholine, neurotransmitter antagonists, glycoproteins such as hyaluronic acid, lipoproteins such as alpha-lipoprotein, immunoglobulins such as IgG, immunomodulators such as interferon or interleuken, vasodilators, dyes such as Arsenazo III, radiolabels such as .sup.14 C, radio-opaque compounds such as .sup.90 Te, fluorescent compounds such as carboxy fluorscein, receptor binding molecules such as estrogen receptor protein, anti-inflammatories such as indomethacin, antiglaucoma agents such as pilocarpine, mydriatic compounds, local anesthetics such as lidocaine, narcotics such as codeine, vitamins such as alpha-tocopherol, nucleic acids such as thymine, polynucleotides such as RNA polymers, psychoactive or anxiolytic agents such as diazepam, mono- di- and polysaccharides, etc. A few of the many specific compounds that can be entrapped are pilocarpine, a polypeptide growth hormone such as human growth hormone, bovine growth hormone and porcine growth hormone, indomethacin, diazepam, alpha-tocopherol itself and tylosin. Antifungal compounds include miconazole, terconazole, econazole, isoconazole, tioconazole, bifonazole, clotrimazole, ketoconazole, butaconazole, itraconazole, oxiconazole, fenticonazole, nystatin, naftifine, amphotericin B, zinoconazole and ciclopirox olamine, preferably miconazole or terconazole. The entrapment of two or more compounds simultaneously may be especially desirable where such compounds produce complementary or synergistic effects. The amounts of drugs administered in liposomes will generally be the same as with the free drug; however, the frequency of dosing may be reduced.

34. Document ID: US 4757088 A

L5: Entry 34 of 39
File: USPT
Jul 12, 1988

US-PAT-NO: 4757088
DOCUMENT-IDENTIFIER: US 4757088 A
TITLE: Antiviral pharmaceutical preparations and methods for their use
DATE-ISSUED: July 12, 1988

US-CL-CURRENT: 514/563; 514/626

DISCLAIMER DATE: 20031209
APPL-NO: 6/ 939513
DATE FILED: October 22, 1986

PARENT-CASE:
This application is a divisional of Ser. No. 587,398, filed Mar. 8, 1984, now U.S. Pat. No. 4,628,063.

IN: Haines; Harold G., Dickens; Caroline B.

AB: The present invention relates to a method and pharmaceutical composition for treating herpes group virus infections in mammals, and in particular, in humans, by administering an effective antiviral amount of lidocaine or a pharmaceutically acceptable salt thereof.

L5: Entry 34 of 39
File: USPT
Jul 12, 1988

DOCUMENT-IDENTIFIER: US 4757088 A
TITLE: Antiviral pharmaceutical preparations and methods for their use

BSPR:
Schmidt et al. (Experentia V. 273, pp 261-262) have shown that lidocaine is able to inhibit DNA synthesis in cell cultures, and that this inhibition is probably a result of the complexing of lidocaine with membranous structures in the cells which thereby interferes

with the site of DNA
synthesis. VorHees et al. (U.S. Pat. No. 4,181,725) have shown that lidocaine can be used in an
ointment in a topical treatment of humans for proliferative skin diseases such as psoriasis.

35. Document ID: US 4752572 A

L5: Entry 35 of 39

File: USPT

Jun 21, 1988

US-PAT-NO: 4752572
DOCUMENT-IDENTIFIER: US 4752572 A
TITLE: Lipid vesicles containing labeled species and their analytical uses
DATE-ISSUED: June 21, 1988

US-CL-CURRENT: 435/7.9; 264/4.1, 428/402.2, 435/7.71, 435/7.93, 435/7.94, 435/805, 435/810,
435/970, 435/975, 436/808, 436/810, 436/829

APPL-NO: 6/ 771548
DATE FILED: August 30, 1985

IN: Sundberg; Michael W., O'Brien; David F., Danielson; Susan J.

AB: Vesicles comprising a matrix of lipid membranes prepared from lipid materials are
useful in biomedical studies and immunoassays. A labeled species is encapsulated within the
vesicles and released when the vesicles are lysed with a surface active agent. The outer
surface of the vesicles is essentially free of the labeled species. Immunoassays can be
carried out in solution or with a dry analytical element.

L5: Entry 35 of 39

File: USPT

Jun 21, 1988

DOCUMENT-IDENTIFIER: US 4752572 A
TITLE: Lipid vesicles containing labeled species and their analytical uses

DEPR:
The composition of this invention can be used in a variety of biomedical studies and clinical
determinations. For example, this composition can be used to label cells or physiologically
active species including proteins (e.g. albumin, IgG, IgM, etc.), nucleic acids (e.g. DNA),
enzymes and their substrates (e.g. creatine kinase, lactate dehydrogenase, creatine, lactate,
etc.), cofactors, viruses, leukocytes, growth factors, antigens, haptens including therapeutic
and narcotic drugs (e.g. theophylline, digoxin, phenobarbital, digitoxin, morphine, barbiturates,
lidocaine, gentamicin, etc.), antibodies (e.g. microsomal antibody, antibodies to hepatitis and
allergens), metabolites (e.g. adenosine-5'-monophosphate), hormones and hormone receptors, (e.g.
thyroxine, insulin, estriol, chorionic gonadotropin, liothyronine, peptide hormones, etc.), plant
lectins, toxins, vitamins (e.g. biotin, vitamin B.sub.12, folic acid, vitamin E, ascorbic acid,
etc.), natural and synthetic steroids (e.g. cortisol, aldosterone, progesterone, etc.), and other
pharmacological agents and their receptors, and other binding substances enabling the detection
of such substances.

36. Document ID: US 4690907 A

L5: Entry 36 of 39

File: USPT

Sep 1, 1987

US-PAT-NO: 4690907
DOCUMENT-IDENTIFIER: US 4690907 A
TITLE: Capillary tube immunoassay
DATE-ISSUED: September 1, 1987

US-CL-CURRENT: 436/514; 422/56, 436/515, 436/518, 436/524, 436/527

APPL-NO: 6/ 683628
DATE FILED: December 19, 1984

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	APPL-DATE
JP	58-239549	December 19, 1983
JP	59-91379	May 8, 1984

IN: Hibino; Mitsugu, Kanada; Taira, Hirata; Miyoshi

AB: A component of a sample may be detected or quantitatively measured by an
immunoreaction, namely causing a target substance-immunoreactive reagent labelled with a
marker-reaction product and/or any remaining, unreacted, immunoreactive reagent to move
while making use of capillarity, causing the reaction product or any remaining, unreacted,
immunoreactive reagent to combine with a substance packed in a capillary tube, and is
immobilized on a carrier and adapted to uptake labelled substance so as to immobilize the
reaction product or any remaining, unreacted, immunoreactive reagent, and measuring the
amount of the thus-immobilized labelled substance. Since reagents are all filled in the
capillary tube, there is no such troublesome that the reagents have to be prepared and/or
any extra reagents have to be discarded upon conducting the measurement. The immunoassay may
be carried out at bed side in hospitals. An extremely small amount of the sample may be
sufficient for its measurement. After the measurement, the capillary tube may be stored as
is or may be thrown away with ease.

L5: Entry 36 of 39

File: USPT

Sep 1, 1987

DOCUMENT-IDENTIFIER: US 4690907 A
TITLE: Capillary tube immunoassay

DEPR:
Exemplary, antigenic components present in samples which components are to be measured in
accordance with this invention are those contained in organism constituents, such as
immunoglobulin, Bence-Jones protein, .alpha..sub.1 -antichymo-trypsin, .alpha..sub.1
-antitrypsin, .alpha..sub.1 -microglobulin, .alpha..sub.2 -microglobulin, .beta..sub.2
-microglobulin, haptoglobin, ferritin, transferrin, ceruloplasmin, antithrombin III, myoglobin,
myosin light chain, cryoglobulin, calmodulin, prealbumin, albumin, transcortin, tyroxine-binding
proteins, retinol-binding proteins, hemopexin, fibronectin, specific pregnant glycoprotein (SPI),
and so on; enzymens including GOT, GPT, ALP, ACP, LDH, .gamma.-GTP, creatine kinase, LAP,
amylase, macroamylase, cholineesterase, aldolase, MAO, 5'-nucleotidase, acid phosphatase, OCT,
pancreatic lipase, plasminogen activator, catalase, L-CAT, lipoprotein lipase, phospholipase A,
DNase, RNase, terminal transferase, pepsin, trypsinogen, chymotrypsin, enterokinase,
aminopeptidase, peroxidase, enolase, tyrosine hydroxylase, dopa decarboxylase, dopamine
.beta.-hydroxylase, etc.; carbohydrates including acidic mucopolysaccharides, inulin,
ganglioside, mucopolysaccharides and so on; lipids, for example, cholesterol, lipoproteins,
apolipoproteins, triglyceride, free fatty acids, phospholipids, bile acid, peroxidelipids, etc.;
vitamins inclusive of vitamin A, D, E and K, ubiquinone, thiamine, riboflavin, vitamin B.sub.6,
nicotinic acid, folic acid, vitamin B.sub.12, ascorbic acid, inositol, and so on; coagulation
factors including fibrinogen, FDP, plasminogen, Factor VIII, Factor IX, Factor XI, Factor XII,
prothromboplastin factor, Factor III, Factor V, Facrtor VII, Factor X, prothrombin,
.beta.-tromboglobulin, C.sub.1 inhibitor, .beta..sub.2 macroglobulin, .alpha..sub.2 plasmin
inhibitor, platelet factor 4, platelet membrane protein, protein C, etc.; pituitary secretion
substances, e.g., growth hormone (somatotropin), somatomedin, luteinizing hormone,
follicle-stimulating hormone, adrenocorticotropic hormone (ACTH), LPH, MSH, .beta.-endorphin,
enkephalin, thyrotropic hormone, prolactin, vasopressin, neurophysin, oxytocin and the like;
thyroid gland secretion substances, for example, T.sub.4, total thyroxine, free thyroxine index,
free thyroxine, triiodothyronine, reverse T.sub.3, long-lasting thyroid stimulating hormone,
calcitonin, thyroglobulin, and the like; adrenal medulla and sympathetic seretion substances
including cathecol amine, metanephrin, normetanephrin, vanillylmandelic acid, homovanillic acid,
3,4-dihydroxyphenylalanine, 3,4-dihydroxyphenylacetic acid, 3-methoxy-4-hydroxyphenylethylene
glycol, dopamine-.beta.-hydroxylase, etc.; adrenal cortex secretion substances, e.g.,
aldosterone, 11-deoxycorticosterone, corticosterone, 18-hydroxycorticosterone, cortisol,
11-deoxycortisol, 11-hydroxycorticosteroid, 17-hydroxy C.sub.21 -steroid, dehydroepiandrosterone,
dehydroepiandrosterone sulfate, androstenedione, 17-ketosteroid, and so on; germinal gland and
placenta excretion substances, for example, testosterone, 5.alpha.-dihydrotestosterone,
androstenedione, estrone, estradiol, estriol, estetrol, cathecol estrodiene, progesterone,
pregnanediol, 17-a-hydroxyprogesterone, pregnanetriol, chorionic gonadotropin, placental
lactogen, and the like; pancreas and digestive secretion substances, including insulin,
proinsulin, C-peptide, pancreatic glucagon, gastrin, secretin, CCK-PZ, Motilyn, enteroglycagon,
pancreatic polypeptides, somatostatin, substance P, neurotensin, etc.; antigens used in syphitis
tests and immunoserologic tests of pathogenic microorganisms; virus, e.g., anti-mycoplasma
antibody, rickettsia, anti-streptolysin 0, anti-streptokinase, anti-deoxyribonucleokinase B,
hypes simplex virus, varicella and herpes zoster virus, cytomegalovirus, EB virus antibody,
adenovirus, influenza virus A and B, influenza virus C, parainfluenza virus, RS virus,
mumpsvirus, measles virus, rubella virus, Japanese encephalitis virus, polio virus, hepatitis
virus A, hepatitis virus B, hepatitis virus S, E, C, non-A and non-B, rhinovirus, coronavirus,
extrinsic infectious diseases, rebies, mumps, coxsackie virus, chlamydia, Rota virus, etc.;
autoantibodies, for example, antinuclear antibody, anti-DNA antibody, anti-ENA antibody,
rheumatoid factor, antiglobulin, LE cells, anti-mitochondria, anti-smooth muscle antibody,
antistomach wall antibody, anti-intrinsic factor antibody, anti-cross-striated muscles antibody,
anti-heart muscle antibody, antiadrenal cortex antibody, antithyroglobulin antibody, antithyroid
microsome antibody, antiinsulin antibody, antiinsulin receptor antibody, antiacetylcholine
receptor antibody, etc.; cell substances including .beta.1E globulin, complements such as
C.sub.1q, C.sub.1r, C.sub.1s, C.sub.2, C.sub.3, C.sub.4, C.sub.5, C.sub.6, C.sub.7, C.sub.8,
C.sub.9 and the like, T cells, B cells, macrophage and so on; tumor markers, e.g.,
carcinoembryonic antigens, .alpha.-fetoprotein, basic fetoprotein, ferritin, isoferritin,
polyamines, CRP, immunoacetic protein (IAP), pancreoembryonic antigens (POA), death factor, etc.;
drugs including phenobarbital, primidone, phenytoin, carbamazepine, valproic acid, lidocaine
hydrochloride, digoxin, digitoxin, theophilline, deisopyramide, mexiretine, propranolol
hydrochloride, diuretics, synthetic steroid agents, chloramphenicol drugs, aminoglycoside drugs,
antituberculosis drugs, methotrexate, opiate, methadone, barbital, amphetamine, cocaine
metabolites, benzodiazopine metabolites, protoxyphene, phencyclidine, cannabinoid, etc.;
renin/angiotenin HCAs including renin, angiotensinogen, angiotensin I, II and III,
angiotensin-converting enzymes, kinin, kininogen, plasma kallikrein, glandular kallikrein and the
like; antigens for blood group tests and blood matching tests; etc.; and antibodies for the
above-mentioned antigens.

37. Document ID: US 4628063 A

L5: Entry 37 of 39

File: USPT

Dec 9, 1986

US-PAT-NO: 4628063
DOCUMENT-IDENTIFIER: US 4628063 A
TITLE: Antiviral pharmaceutical preparations and methods for their use
DATE-ISSUED: December 9, 1986

US-CL-CURRENT: 514/626; 514/563, 514/629

APPL-NO: 6/ 587398
DATE FILED: March 8, 1984

IN: Haines; Harold G., Dickens; Caroline B.

AB: The present invention relates to a method and pharmaceutical composition for
treating herpes group virus infections in mammals, and in particular, in humans, by
administering an effective antiviral amount of lidocaine or a pharmaceutically acceptable
salt thereof.

L5: Entry 37 of 39
File: USPT
Dec 9, 1986

DOCUMENT-IDENTIFIER: US 4628063 A
TITLE: Antiviral pharmaceutical preparations and methods for their use

BSPR:
Schmidt et al. (Experentia V. 273, pp 261-262) have shown that lidocaine is able to inhibit DNA
synthesis in cell cultures, and that this inhibition is probably a result of the complexing of
lidocaine with membranous structures in the cells which thereby interferes with the site of DNA
synthesis. VorHees et al. (U.S. Pat. No. 4,181,725) have shown that lidocaine can be used in an
ointment in a topical treatment of humans for proliferative skin diseases such as psoriasis.

38. Document ID: EP 154344 A, AU 8540673 A, DE 3587434 G, EP 154344 B1, ES 8700053 A, IL 74535 A, JP 61501325 W, JP 94076317 B2, PT 80079 A, US 4628063 A, US 4757088 A, US 4914131 A, WO 8503862 A, ZA 8501765 A
L5: Entry 38 of 39
File: DWPI
Sep 11, 1985

DERWENT-ACC-NO: 1985-224757
DERWENT-WEEK: 198537

TITLE: Treatment of herpes-group virus infections - using lidocaine

PRIORITY-DATA: 1986US-0939513 (October 22, 1986), 1984US-0587398 (March 8, 1984), 1987US-0067230 (June 29, 1987), 1989US-0338448 (April 14, 1989)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
EP 154344 A	September 11, 1985	E	044	N/A
AU 8540673 A	October 24, 1985	N/A	000	N/A
DE 3587434 G	August 12, 1993	N/A	000	A61K031/165
EP 154344 B1	July 7, 1993	E	023	A61K031/165
ES 8700053 A	January 1, 1987	N/A	000	N/A
IL 74535 A	December 30, 1988	N/A	000	N/A
JP 61501325 W	July 3, 1986	N/A	000	N/A
JP 94076317 B2	September 28, 1994	N/A	013	A61K031/165
PT 80079 A	December 6, 1985	N/A	000	N/A
US 4628063 A	December 9, 1986	N/A	000	N/A
US 4757088 A	July 12, 1988	N/A	000	N/A
US 4914131 A	April 3, 1990	N/A	000	N/A
WO 8503862 A	September 12, 1985	E	000	N/A
ZA 8501765 A	September 10, 1985	N/A	000	N/A

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
EP 154344A	March 7, 1985	1985EP-0102607	N/A
DE 3587434G	March 7, 1985	1985DE-3587434	N/A
DE 3587434G	March 7, 1985	1985EP-0102607	N/A
DE 3587434G	EP 154344		Based on
EP 154344B1	March 7, 1985	1985EP-0102607	

N/A

ES 8700053A
March 8, 1985
1985ES-0541103
N/A

JP61501325W
March 6, 1985
1985JP-0501264
N/A

JP94076317B2
March 6, 1985
1985JP-0501264
N/A

JP94076317B2
March 6, 1985
1985WO-US00362
N/A

JP94076317B2
JP61501325
Based on

JP94076317B2
WO 8503862
Based on

US 4628063A
March 8, 1984
1984US-0587398
N/A

US 4757088A
October 22, 1986
1986US-0939513
N/A

US 4914131A
April 14, 1989
1989US-0338448
N/A

WO 8503862A
March 6, 1985
1985WO-US00362
N/A

ZA 8501765A
March 8, 1985
1985ZA-0001765
N/A

INT-CL (IPC): A61K 9/06; A61K 31/16; A61K 31/165; A61K 31/195; A61K 39/00; C07C 103/50; C07C 237/06; A61K 31/195; A61K 31/165

IN: DICKENS, C B, HAINES, H G

AB: Herpes-group virus infections in mammals (esp. humans) are treated by admin. of
lidocaine (I) or a salt of (I)., (I) is applied topically as an ointment or gel, or
parentally as an aq. soln. The dosage forms contain 1.5-10% (I). HCl and 5-50 mg/ml
panthenol, pantothenic acid or its salts., USE - The treatment is esp. applicable to herpes
simplex (HSV1 and HSV2) but may also be applied to cytomegalovirus, varicella-zoster and
Epstein-Barr virus infections., Herpes-group virus infections in mammals (esp. humans) are
treated by admin. of lidocaine (I) or a salt of (I)., (I) is applied topically as an
ointment or gel, or parentally as an aq. soln. The dosage forms contain 1.5-10% (I). HCl and
5-50 mg/ml panthenol, pantothenic acid or its salts., USE - The treatment is esp. applicable
to herpes simplex (HSV1 and HSV2) but may also be applied to cytomegalovirus,
varicella-zoster and Epstein-Barr virus infections., New method of treating Herpes virus
infections comprises admin. of synergistic mixt. of 0.5-10% w/v lidocaine
(2-diethylaminoacetyl -2,6-xylidide) or its salt (HCl) and above 3% w/v pantothenol (vitamin
B5) or salt., Compsn. may be sterile soln. (for p.e.) or as ointment for topical use.,
USE/ADVANTAGE - Inhibits DNA synthesis and Herpes virus (Fig.1 for HSV-1 effect). Dosage
e.g. 4.3 mg/kg/day. (10pp)r, Method of treating herpes gp. viral infections comprises admin.
mixt. of 0.1-10% w/v lidocaine (diethylaminoacet-2,6-xylidide) or salt (HCl) and 5-50 mg/ml
pantothenic acid (vitamin B5) or salt., Dose for cutaneous herpes simplex is topical admin.
as gel at 2 mg/lb body wt./day. For herpes Zoster is p.e. admin. as above., USE - Lidocaine
inhibits DNA synthesis and herpes simplex virus replication and is effective antiviral of
low toxicity, as is pantothenic acid. Mixt. is more effective than either alone. (10pp),
Inhibition of replication of herpes simplex virus infected mammals comprises admin. of
lidocaine or its salts., Pref. the lidocaine (salt) is administered parenterally as an aq.
soln. of concn. 0.1-10% w/v/. esp. as the hydrochloride salt. Lidocaine
(2-diethylaminoacetyl-2,6-xylidide) is an aminoamide which is conventional ly used as local
anasthetic., USE/ADVANTAGE - Useful in the treatment of herpes simplex virus (HSV)
infections, esp. of HSV oral and genital lessions. (7pp)

L5: Entry 38 of 39
File: DWPI
Sep 11, 1985

DERWENT-ACC-NO: 1985-224757
DERWENT-WEEK: 198537
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TITLE: Treatment of herpes-group virus infections - using lidocaine

ABEQ:
USE - Lidocaine inhibits DNA synthesis and herpes simplex virus replication and is effective
antiviral of low toxicity, as is pantothenic acid. Mixt. is more effective than either alone.
(10pp)

39. Document ID: FR 2068415 A
L5: Entry 39 of 39
File: DWPI

DERWENT-ACC-NO: 1971-72987S
DERWENT-WEEK: 197146
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TITLE: Anti-aging mixture of vitamins and minerals

PRIORITY-DATA: 1969FR-0036193 (October 22, 1969)

PATENT-FAMILY:
PUB-NO
PUB-DATE
LANGUAGE
PAGES
MAIN-IPC

FR 2068415 A
N/A
000
N/A

INT-CL (IPC): A61K 27/00

IN: No data.

AB: A composition contains in each dose; DNA 10-100 mg. procaine hydrochloride ,
5-100 mg.; an organic water-soluble Mg salt, 5-50mg.; a mineral water-soluble magesium salt,
5-50mg., KHSO4, 1-10 mg. a sodium or potassium phosphate, 0.1-1 mg.; vitamin A, 1,000-10,000
i.u., vitamin E, 10-200 mg., pyridoxine hydrochloride, 50-250 mg.; (opt.) hydroxycotalam in
base, 50-100 mu g., This mixture ameliorates the effects of ageing in human patients., It is
formulated in tablets, jellies, or sachets for oral adminstration, or in two ampoules, one
containing the water-soluble and one the fat-soluble ingredients, which are mixed just prior
to intramuscular injection.

L5: Entry 39 of 39

File: DWPI

DERWENT-ACC-NO: 1971-72987S
DERWENT-WEEK: 197146

TITLE: Anti-aging mixture of vitamins and minerals

ABTX:

A composition contains in each dose; DNA 10-100 mg. procaine hydrochloride , 5-100
mg.; an organic water-soluble Mg salt, 5-50mg.; a mineral water-soluble magesium salt,
5-50mg., KHSO4, 1-10 mg. a sodium or potassium phosphate, 0.1-1 mg.; vitamin A,
1,000-10,000 i.u., vitamin E, 10-200 mg., pyridoxine hydrochloride, 50-250 mg.; (opt.)
hydroxycotalam in base, 50-100 mu g.

09/359 975
AH#10

Search Results - Record(s) 1 through 29 of 29 returned.

1. Document ID: US 6015712 A
Entry 1 of 29
File: USPT
Jan 18, 2000

DOCUMENT-IDENTIFIER: US 6015712 A
TITLE: Antisense modulation of FADD expression

BSPR:
Chelating Agents: Chelating agents, as used in connection with the present invention, can be
defined as compounds that remove metallic ions from solution by forming complexes therewith, with
the result that absorption of oligonucleotides through the mucosa is enhanced. With regards to
their use as penetration enhancers in the present invention, chelating agents have the added
advantage of also serving as DNase inhibitors, as most characterized DNA nucleases require a
divalent metal ion for catalysis and are thus inhibited by chelating agents (Jarrett, J.
Chromatogr., 1993, 618, 315-339). Chelating agents of the invention include but are not limited
to disodium ethylenediaminetetraacetate (EDTA), citric acid, salicylates (e.g., sodium
salicylate, 5-methoxysalicylate and homovanilate), N-acyl derivatives of collagen, laureth-9 and
N-amino acyl derivatives of beta-diketones (enamines)(Lee et al., Critical Reviews in Therapeutic
Drug Carrier Systems, 1991, page 92; Muranishi, Critical Reviews in Therapeutic Drug Carrier
Systems, 1990, 7, 1-33; Buur et al., J. Control Rel., 1990, 14, 43-51).

2. Document ID: US 6013522 A
Entry 2 of 29
File: USPT
Jan 11, 2000

DOCUMENT-IDENTIFIER: US 6013522 A
TITLE: Antisense inhibition of human Smad1 expression

BSPR:
Chelating Agents: Chelating agents, as used in connection with the present invention, can be
defined as compounds that remove metallic ions from solution by forming complexes therewith, with
the result that absorption of oligonucleotides through the mucosa is enhanced. With regards to
their use as penetration enhancers in the present invention, chelating agents have the added
advantage of also serving as DNase inhibitors, as most characterized DNA nucleases require a
divalent metal ion for catalysis and are thus inhibited by chelating agents (Jarrett, J.
Chromatogr., 1993, 618, 315-339). Chelating agents of the invention include but are not limited
to disodium ethylenediaminetetraacetate (EDTA), citric acid, salicylates (e.g., sodium
salicylate, 5-methoxysalicylate and homovanilate), N-acyl derivatives of collagen, laureth-9 and
N-amino acyl derivatives of beta-diketones (enamines)(Lee et al., Critical Reviews in Therapeutic
Drug Carrier Systems, 1991, page 92; Muranishi, Critical Reviews in Therapeutic Drug Carrier
Systems, 1990, 7, 1-33; Buur et al., J. Control Rel., 1990, 14, 43-51).

3. Document ID: US 6013788 A
Entry 3 of 29
File: USPT
Jan 11, 2000

DOCUMENT-IDENTIFIER: US 6013788 A
TITLE: Antisense modulation of Smad3 expression

BSPR:
Chelating Agents: Chelating agents, as used in connection with the present invention, can be
defined as compounds that remove metallic ions from solution by forming complexes therewith, with
the result that absorption of oligonucleotides through the mucosa is enhanced. with regards to
their use as penetration enhancers in the present invention, chelating agents have the added
advantage of also serving as DNase inhibitors, as most characterized DNA nucleases require a
divalent metal ion for catalysis and are thus inhibited by chelating agents (Jarrett, J.
Chromatogr., 1993, 618, 315-339). Chelating agents of the invention include but are not limited
to disodium ethylenediaminetetraacetate (EDTA), citric acid, salicylates (e.g., sodium
salicylate, 5-methoxysalicylate and homovanilate), N-acyl derivatives of collagen, laureth-9 and
N-amino acyl derivatives of beta-diketones (enamines) (Lee et al., Critical Reviews in
Therapeutic Drug Carrier Systems, 1991, page 92; Muranishi, Critical Reviews in Therapeutic Drug
Carrier Systems, 1990, , 1-33; Buur et al., J. Control Rel., 1990, 14, 43-51).

4. Document ID: US 6013787 A
Entry 4 of 29
File: USPT
Jan 11, 2000

DOCUMENT-IDENTIFIER: US 6013787 A
TITLE: Antisense modulation of Smad4 expression

BSPR:
Chelating agents, as used in connection with the present invention, can be defined as compounds
that remove metallic ions from solution by forming complexes therewith, with the result that
absorption of oligonucleotides through the mucosa is enhanced. With regards to their use as
penetration enhancers in the present invention, chelating agents have the added advantage of also
serving as DNase inhibitors, as most characterized DNA nucleases require a divalent metal ion for
catalysis and are thus inhibited by chelating agents (Jarrett, J. Chromatogr., 1993, 618,
315-339). Chelating agents of the invention include but are not limited to disodium
ethylenediaminetetraacetate (EDTA), citric acid, salicylates (e.g., sodium salicylate,
5-methoxysalicylate and homovanilate), N-acyl derivatives of collagen, laureth-9 and N-amino acyl
derivatives of beta-diketones (enamines) (Lee et al., Critical Reviews in Therapeutic Drug
Carrier Systems, 1991, page 92; Muranishi, Critical Reviews in Therapeutic Drug Carrier Systems,
1990, 7, 1-33; Buur et al., J. Control Rel., 1990, 14, 43-51).

5. Document ID: US 6010906 A

Entry 5 of 29

File: USPT

Jan 4, 2000

DOCUMENT-IDENTIFIER: US 6010906 A
TITLE: Antisense modulation of Jun N-terminal kinase kinase-1 expression

BSPR:
Chelating Agents: Chelating agents, as used in connection with the present invention, can be
defined as compounds that remove metallic ions from solution by forming complexes therewith, with
the result that absorption of oligonucleotides through the mucosa is enhanced. With regards to
their use as penetration enhancers in the present invention, chelating agents have the added
advantage of also serving as DNase inhibitors, as most characterized DNA nucleases require a
divalent metal ion for catalysis and are thus inhibited by chelating agents (Jarrett, J.
Chromatogr., 1993, 618, 315-339). Chelating agents of the invention include but are not limited
to disodium ethylenediaminetetraacetate (EDTA), citric acid, salicylates (e.g., sodium
salicylate, 5-methoxysalicylate and homovanilate), N-acyl derivatives of collagen, laureth-9 and
N-amino acyl derivatives of beta-diketones (enamines)(Lee et al., Critical Reviews in Therapeutic
Drug Carrier Systems, 1991, page 92; Muranishi, Critical Reviews in Therapeutic Drug Carrier
Systems, 1990, 7, 1-33; Buur et al., J. Control Rel., 1990, 14, 43-51).

6. Document ID: US 6008344 A
Entry 6 of 29

File: USPT

Dec 28, 1999

DOCUMENT-IDENTIFIER: US 6008344 A
TITLE: Antisense modulation of phospholipase A2 group IV expression

BSPR:
Chelating Agents: Chelating agents, as used in connection with the present invention, can be
defined as compounds that remove metallic ions from solution by forming complexes therewith, with
the result that absorption of oligonucleotides through the mucosa is enhanced. With regards to
their use as penetration enhancers in the present invention, chelating agents have the added
advantage of also serving as DNase inhibitors, as most characterized DNA nucleases require a
divalent metal ion for catalysis and are thus inhibited by chelating agents (Jarrett, J.
Chromatogr., 1993, 618, 315-339). Chelating agents of the invention include but are not limited
to disodium ethylenediaminetetraacetate (EDTA), citric acid, salicylates (e.g., sodium
salicylate, 5-methoxysalicylate and homovanilate), N-acyl derivatives of collagen, laureth-9 and
N-amino acyl derivatives of beta-diketones (enamines)(Lee et al., Critical Reviews in Therapeutic
Drug Carrier Systems, 1991, page 92; Muranishi, Critical Reviews in Therapeutic Drug Carrier
Systems, 1990, 7, 1-33; Buur et al., J. Control Rel., 1990, 14, 43-51).

7. Document ID: US 6008048 A
Entry 7 of 29

File: USPT

Dec 28, 1999

DOCUMENT-IDENTIFIER: US 6008048 A
TITLE: Antisense inhibition of EGR-1 expression

BSPR:
Chelating Agents: Chelating agents, as used in connection with the present invention, can be
defined as compounds that remove metallic ions from solution by forming complexes therewith, with
the result that absorption of oligonucleotides through the mucosa is enhanced. With regards to
their use as penetration enhancers in the present invention, chelating agents have the added
advantage of also serving as DNase inhibitors, as most characterized DNA nucleases require a
divalent metal ion for catalysis and are thus inhibited by chelating agents (Jarrett, J.
Chromatogr., 1993, 618, 315-339). Chelating agents of the invention include but are not limited
to disodium ethylenediaminetetraacetate (EDTA), citric acid, salicylates (e.g., sodium
salicylate, 5-methoxysalicylate and homovanilate), N-acyl derivatives of collagen, laureth-9 and
N-amino acyl derivatives of beta-diketones (enamines) (Lee et al., Critical Reviews in
Therapeutic Drug Carrier Systems, 1991, page 92; Muranishi, Critical Reviews in Therapeutic Drug
Carrier Systems, 1990, 7, 1-33; Buur et al., J. Control Rel., 1990, 14, 43-51).

8. Document ID: US 5998206 A
Entry 8 of 29

File: USPT

Dec 7, 1999

DOCUMENT-IDENTIFIER: US 5998206 A
TITLE: Antisense inhibiton of human G-alpha-12 expression

BSPR:
Chelating Agents: Chelating agents, as used in connection with the present invention, can be
defined as compounds that remove metallic ions from solution by forming complexes therewith, with
the result that absorption of oligonucleotides through the mucosa is enhanced. With regards to
their use as penetration enhancers in the present invention, chelating agents have the added
advantage of also serving as DNase inhibitors, as most characterized DNA nucleases require a
divalent metal ion for catalysis and are thus inhibited by chelating agents (Jarrett, J.
Chromatogr., 1993, 618, 315-339). Chelating agents of the invention include but are not limited
to disodium ethylenediaminetetraacetate (EDTA), citric acid, salicylates (e.g., sodium
salicylate, 5-methoxysalicylate and homovanilate), N-acyl derivatives of collagen, laureth-9 and
N-amino acyl derivatives of beta-diketones (enamines)(Lee et al., Critical Reviews in Therapeutic
Drug Carrier Systems, 1991, page 92; Muranishi, Critical Reviews in Therapeutic Drug Carrier
Systems, 1990, 7, 1-33; Buur et al., J. Control Rel., 1990, 14, 43-51).

9. Document ID: US 5998148 A
Entry 9 of 29

File: USPT

Dec 7, 1999

DOCUMENT-IDENTIFIER: US 5998148 A
TITLE: Antisense modulation of microtubule-associated protein 4 expression

BSPR:
Chelating Agents: Chelating agents, as used in connection with the present invention, can be
defined as compounds that remove metallic ions from solution by forming complexes therewith, with
the result that absorption of oligonucleotides through the mucosa is enhanced. With regards to
their use as penetration enhancers in the present invention, chelating agents have the added
advantage of also serving as DNase inhibitors, as most characterized DNA nucleases require a
divalent metal ion for catalysis and are thus inhibited by chelating agents (Jarrett, J.
Chromatogr., 1993, 618, 315-339). Chelating agents of the invention include but are not limited
to disodium ethylenediaminetetraacetate (EDTA), citric acid, salicylates (e.g., sodium
salicylate, 5-methoxysalicylate and homovanilate), N-acyl derivatives of collagen, laureth-9 and
N-amino acyl derivatives of beta-diketones (enamines)(Lee et al., Critical Reviews in Therapeutic
Drug Carrier Systems, 1991, page 92; Muranishi, Critical Reviews in Therapeutic Drug Carrier
Systems, 1990, 7, 1-33; Buur et al., J. Control Rel., 1990, 14, 43-51).

10. Document ID: US 5985664 A
Entry 10 of 29
File: USPT
Nov 16, 1999

DOCUMENT-IDENTIFIER: US 5985664 A
TITLE: Antisense modulation of Sentrin expression

BSPR:
Chelating Agents: Chelating agents, as used in connection with the present invention, can be
defined as compounds that remove metallic ions from solution by forming complexes therewith, with
the result that absorption of oligonucleotides through the mucosa is enhanced. With regards to
their use as penetration enhancers in the present invention, chelating agents have the added
advantage of also serving as DNase inhibitors, as most characterized DNA nucleases require a
divalent metal ion for catalysis and are thus inhibited by chelating agents (Jarrett, J.
Chromatogr., 1993, 618, 315-339). Chelating agents of the invention include but are not limited
to disodium ethylenediaminetetraacetate (EDTA), citric acid, salicylates (e.g., sodium
salicylate, 5-methoxysalicylate and homovanilate), N-acyl derivatives of collagen, laureth-9 and
N-amino acyl derivatives of beta-diketones (enamines)(Lee et al., Critical Reviews in Therapeutic
Drug Carrier Systems, 1991, page 92; Muranishi, Critical Reviews in Therapeutic Drug Carrier
Systems, 1990, 7, 1-33; Buur et al., J. Control Rel., 1990, 14, 43-51).

11. Document ID: US 5985663 A
Entry 11 of 29
File: USPT
Nov 16, 1999

DOCUMENT-IDENTIFIER: US 5985663 A
TITLE: Antisense inhibition of interleukin-15 expression

BSPR:
Chelating Agents: Chelating agents, as used in connection with the present invention, can be
defined as compounds that remove metallic ions from solution by forming complexes therewith, with
the result that absorption of oligonucleotides through the mucosa is enhanced. With regards to
their use as penetration enhancers in the present invention, chelating agents have the added
advantage of also serving as DNase inhibitors, as most characterized. DNA nucleases require a
divalent metal ion for catalysis and are thus inhibited by chelating agents (Jarrett, J.
Chromatogr., 1993, 618, 315-339). Chelating agents of the invention include but are not limited
to disodium ethylenediaminetetraacetate (EDTA), citric acid, salicylates (e.g., sodium
salicylate, 5-methoxysalicylate and homovanilate), N-acyl derivatives of collagen, laureth-9 and
N-amino acyl derivatives of beta-diketones (enamines)(Lee et al., Critical Reviews in Therapeutic
Drug Carrier Systems, 1991, page 92; Muranishi, Critical Reviews in Therapeutic Drug Carrier
Systems, 1990, 7, 1-33; Buur et al., J. Control Rel., 1990, 14, 43-51).

12. Document ID: US 5981732 A
Entry 12 of 29
File: USPT
Nov 9, 1999

DOCUMENT-IDENTIFIER: US 5981732 A
TITLE: Antisense modulation of G-alpha-13 expression

BSPR:
Chelating Agents: Chelating agents, as used in connection with the present invention, can be
defined as compounds that remove metallic ions from solution by forming complexes therewith, with
the result that absorption of oligonucleotides through the mucosa is enhanced. With regards to
their use as penetration enhancers in the present invention, chelating agents have the added
advantage of also serving as DNase inhibitors, as most characterized DNA nucleases require a
divalent metal ion for catalysis and are thus inhibited by chelating agents (Jarrett, J.
Chromatogr., 1993, 618, 315-339). Chelating agents of the invention include but are not limited
to disodium ethylenediaminetetraacetate (EDTA), citric acid, salicylates (e.g., sodium
salicylate, 5-methoxysalicylate and homovanilate), N-acyl derivatives of collagen, laureth-9 and
N-amino acyl derivatives of beta-diketones (enamines)(Lee et al., Critical Reviews in Therapeutic
Drug Carrier Systems, 1991, page 92; Muranishi, Critical Reviews in Therapeutic Drug Carrier
Systems, 1990, 7, 1-33; Buur et al., J. Control Rel., 1990, 14, 43-51).

13. Document ID: US 5977341 A
Entry 13 of 29
File: USPT
Nov 2, 1999

DOCUMENT-IDENTIFIER: US 5977341 A
TITLE: Antisense modulation of inhibitor-kappa B kinase-beta expression

BSPR:
Chelating Agents: Chelating agents, as used in connection with the present invention, can be
defined as compounds that remove metallic ions from solution by forming complexes therewith, with
the result that absorption of oligonucleotides through the mucosa is enhanced. With regards to
their use as penetration enhancers in the present invention, chelating agents have the added
advantage of also serving as DNase inhibitors, as most characterized DNA nucleases require a
divalent metal ion for catalysis and are thus inhibited by chelating agents (Jarrett, J.
Chromatogr., 1993, 618, 315-339). Chelating agents of the invention include but are not limited
to disodium ethylenediaminetetraacetate (EDTA), citric acid, salicylates (e.g., sodium
salicylate, 5-methoxysalicylate and homovanilate), N-acyl derivatives of collagen, laureth-9 and
N-amino acyl derivatives of beta-diketones (enamines)(Lee et al., Critical Reviews in Therapeutic
Drug Carrier Systems, 1991, page 92; Muranishi, Critical Reviews in Therapeutic Drug Carrier
Systems, 1990, 7, 1-33; Buur et al., J. Control Rel., 1990, 14, 43-51).

14. Document ID: US 5965137 A
Entry 14 of 29
File: USPT
Oct 12, 1999

DOCUMENT-IDENTIFIER: US 5965137 A
TITLE: Insect repellent composition and method for inhibiting the transmission and treatment of
symptoms of vector-borne diseases

BSPR:
The present invention relates to a novel composition of an insect repellent with bio-active
agents delivered transdermally by a penetration enhancer to prevent and treat vector-borne
diseases.

15. Document ID: US 5962673 A
Entry 15 of 29
File: USPT
Oct 5, 1999

DOCUMENT-IDENTIFIER: US 5962673 A
TITLE: Antisense modulation of inhibitor-kappa B kinase-alpha expression

BSPR:
Chelating Agents: Chelating agents, as used in connection with the present invention, can be
defined as compounds that remove metallic ions from solution by forming complexes therewith, with
the result that absorption of oligonucleotides through the mucosa is enhanced. With regards to
their use as penetration enhancers in the present invention, chelating agents have the added
advantage of also serving as DNase inhibitors, as most characterized DNA nucleases require a
divalent metal ion for catalysis and are thus inhibited by chelating agents (Jarrett, J.
Chromatogr., 1993, 618, 315-339). Chelating agents of the invention include but are not limited
to disodium ethylenediaminetetraacetate (EDTA), citric acid, salicylates (e.g., sodium
salicylate, 5-methoxysalicylate and homovanilate), N-acyl derivatives of collagen, laureth-9 and
N-amino acyl derivatives of beta-diketones (enamines)(Lee et al., Critical Reviews in Therapeutic
Drug Carrier Systems, 1991, page 92; Muranishi, Critical Reviews in Therapeutic Drug Carrier
Systems, 1990, 7, 1-33; Buur et al., J. Control Rel., 1990, 14, 43-51).

16. Document ID: US 5959097 A
Entry 16 of 29
File: USPT
Sep 28, 1999

DOCUMENT-IDENTIFIER: US 5959097 A
TITLE: Antisense modulation of MEK2 expression

BSPR:
Chelating Agents: Chelating agents, as used in connection with the present invention, can be
defined as compounds that remove metallic ions from solution by forming complexes therewith, with
the result that absorption of oligonucleotides through the mucosa is enhanced. With regards to
their use as penetration enhancers in the present invention, chelating agents have the added
advantage of also serving as DNase inhibitors, as most characterized DNA nucleases require a
divalent metal ion for catalysis and are thus inhibited by chelating agents (Jarrett, J.
Chromatogr., 1993, 618, 315-339). Chelating agents of the invention include but are not limited
to disodium ethylenediaminetetraacetate (EDTA), citric acid, salicylates (e.g., sodium
salicylate, 5-methoxysalicylate and homovanilate), N-acyl derivatives of collagen, laureth-9 and
N-amino acyl derivatives of beta-diketones (enamines)(Lee et al., Critical Reviews in Therapeutic
Drug Carrier Systems, 1991, page 92; Muranishi, Critical Reviews in Therapeutic Drug Carrier
Systems, 1990, 7, 1-33; Buur et al., J. Control Rel., 1990, 14, 43-51).

17. Document ID: US 5958773 A
Entry 17 of 29
File: USPT
Sep 28, 1999

DOCUMENT-IDENTIFIER: US 5958773 A
TITLE: Antisense modulation of AKT-1 expression

BSPR:
Chelating Agents: Chelating agents, as used in connection with the present invention, can be
defined as compounds that remove metallic ions from solution by forming complexes therewith, with
the result that absorption of oligonucleotides through the mucosa is enhanced. With regards to
their use as penetration enhancers in the present invention, chelating agents have the added
advantage of also serving as DNase inhibitors, as most characterized DNA nucleases require a
divalent metal ion for catalysis and are thus inhibited by chelating agents (Jarrett, J.
Chromatogr., 1993, 618, 315-339). Chelating agents of the invention include but are not limited
to disodium ethylenediaminetetraacetate (EDTA), citric acid, salicylates (e.g., sodium
salicylate, 5-methoxysalicylate and homovanilate), N-acyl derivatives of collagen, laureth-9 and

N-amino acyl derivatives of beta-diketones (enamines)(Lee et al., Critical Reviews in Therapeutic
Drug Carrier Systems, 1991, page 92; Muranishi, Critical Reviews in Therapeutic Drug Carrier
Systems, 1990, 7, 1-33; Buur et al., J. Control Rel., 1990, 14, 43-51).

18. Document ID: US 5958772 A
Entry 18 of 29
File: USPT
Sep 28, 1999

DOCUMENT-IDENTIFIER: US 5958772 A
TITLE: Antisense inhibition of cellular inhibitor of apoptosis-1 expression

BSPR:
Chelating Agents: Chelating agents, as used in connection with the present invention, can be
defined as compounds that remove metallic ions from solution by forming complexes therewith, with
the result that absorption of oligonucleotides through the mucosa is enhanced. With regards to
their use as penetration enhancers in the present invention, chelating agents have the added
advantage of also serving as DNase inhibitors, as most characterized DNA nucleases require a
divalent metal ion for catalysis and are thus inhibited by chelating agents (Jarrett, J.
Chromatogr., 1993, 618, 315-339). Chelating agents of the invention include but are not limited
to disodium ethylenediaminetetraacetate (EDTA), citric acid, salicylates (e.g., sodium
salicylate, 5-methoxysalicylate and homovanilate), N-acyl derivatives of collagen, laureth-9 and
N-amino acyl derivatives of beta-diketones (enamines) (Lee et al., Critical Reviews in
Therapeutic Drug Carrier Systems, 1991, page 92; Muranishi, Critical Reviews in Therapeutic Drug
Carrier Systems, 1990, 7, 1-33; Buur et al., J. Control Rel., 1990, 14, 43-51).

19. Document ID: US 5958771 A
Entry 19 of 29
File: USPT
Sep 28, 1999

DOCUMENT-IDENTIFIER: US 5958771 A
TITLE: Antisense modulation of cellular inhibitor of Apoptosis-2 expression

BSPR:
Chelating Agents: Chelating agents, as used in connection with the present invention, can be
defined as compounds that remove metallic ions from solution by forming complexes therewith, with
the result that absorption of oligonucleotides through the mucosa is enhanced. With regards to
their use as penetration enhancers in the present invention, chelating agents have the added
advantage of also serving as DNase inhibitors, as most characterized DNA nucleases require a
divalent metal ion for catalysis and are thus inhibited by chelating agents (Jarrett, J.
Chromatogr., 1993, 618, 315-339). Chelating agents of the invention include but are not limited
to disodium ethylenediaminetetraacetate (EDTA), citric acid, salicylates (e.g., sodium
salicylate, 5-methoxysalicylate and homovanilate), N-acyl derivatives of collagen, laureth-9 and

N-amino acyl derivatives of beta-diketones (enamines)(Lee et al., Critical Reviews in Therapeutic
Drug Carrier Systems, 1991, page 92; Muranishi, Critical Reviews in Therapeutic Drug Carrier
Systems, 1990, 7, 1-33; Buur et al., J. Control Rel., 1990, 14, 43-51).

20. Document ID: US 5951455 A
Entry 20 of 29
File: USPT
Sep 14, 1999

DOCUMENT-IDENTIFIER: US 5951455 A
TITLE: Antisense modulation of G-alpha-11 expression

BSPR:
Chelating Agents: Chelating agents, as used in connection with th e present invention, can be
defined as compounds that remove metallic ions from solution by forming complexes therewith, with
the result that absorption of oligonucleotides through the mucosa is enhanced. With regards to
their use as penetration enhancers in the present invention, chelating agents have the added
advantage of also serving as DNase inhibitors , as most characterized DNA nucleases require a
divalent metal ion for catalysis and are thus inhibited by chelating agents (Jarrett, J.
Chromatogr., 1993, 618, 315-339). chelating agents of the invention include but are not limited
to disodium ethylenediaminetetraacetate (EDTA), citric acid, salicylates (e.g., sodium
salicylate, 5-methoxysalicylate and homovanilate), N-acyl derivatives of collagen, laureth-9 and
N-amino acyl derivatives of beta-diketones (enamines)(Lee et al., Critical Reviews in Therapeutic
Drug Carrier Systems, 1991, page 92; Muranishi, Critical Reviews in Therapeutic Drug Carrier
Systems, 1990, 7, 1-33; Buur et al., J. Control Rel., 1990, 14, 43-51).

21. Document ID: US 5948680 A
Entry 21 of 29
File: USPT
Sep 7, 1999

DOCUMENT-IDENTIFIER: US 5948680 A
TITLE: Antisense inhibition of Elk-1 expression

BSPR:
Chelating Agents: Chelating agents, as used in connection with the present invention, can be
defined as compounds that remove metallic ions from solution by forming complexes therewith, with
the result that absorption of oligonucleotides through the mucosa is enhanced. With regards to
their use as penetration enhancers in the present invention, chelating agents have the added
advantage of also serving as DNase inhibitors, as most characterized DNA nucleases require a
divalent metal ion for catalysis and are thus inhibited by chelating agents (Jarrett, J.
Chromatogr., 1993, 618, 315-339). Chelating agents of the invention include but are not limited
to disodium ethylenediaminetetraacetate (EDTA), citric acid, salicylates (e.g., sodium
salicylate, 5-methoxysalicylate and homovanilate), N-acyl derivatives of collagen, laureth-9 and
N-amino acyl derivatives of beta-diketones (enamines) (Lee et al., Critical Reviews in

Therapeutic Drug Carrier Systems, 1991, page 92; Muranishi, Critical Reviews in Therapeutic Drug
Carrier Systems, 1990, 7, 1-33; Buur et al., J. Control Rel., 1990, 14, 43-51).

22. Document ID: US 5939400 A
Entry 22 of 29
File: USPT
Aug 17, 1999

DOCUMENT-IDENTIFIER: US 5939400 A
TITLE: DNA vaccination for induction of suppressive T cell response

DEPR:
The vaccine may be formulated with one or a cocktail of V.sub.vaccine sequences, which may be on
the same or different vectors. The DNA vectors are suspended in a physiologically acceptable
buffer, generally an aqueous solution e.g. normal saline, phosphate buffered saline, water, etc.
Stabilizing agents, wetting and emulsifying agents, salts for varying the osmotic pressure or
buffers for securing an adequate pH value, and skin penetration enhancers can be used as
auxiliary agents. The DNA will usually be present at a concentration of at least about 1 ng/ml
and not more than about 10 mg/ml, usually at about from 100 .mu.g to 1 mg/ml. The vaccine may be
fractionated into two or more doses, of at least about 1 .mu.g, more usually at least about 100
.mu.g, and preferably at least about 1 mg per dose, administered from about 4 days to one week
apart.

23. Document ID: US 5935994 A
Entry 23 of 29
File: USPT
Aug 10, 1999

DOCUMENT-IDENTIFIER: US 5935994 A
TITLE: Nutritionally balanced dermal composition and method

BSPR:
The present invention provides for a method of penetrating the epidermis of the skin with a
nutritionally balanced composition. The present invention also provides a formulation which
contains essential nutrients, modulating factors, stimulators of the cellular activities of the
epidermis and the dermis and a penetration enhancer which allows these molecules to enter the
skin. The nutritionally balanced formulation of the present invention include: (a) essential
amino acids in a ratio which is generally the same as their concentration in body fluids; (b) a
lipid soluble form of vitamin C such as vitamin C palmitate; (c) stimulators of cellular
biosynthetic activity; nucleic acids (purines and pyrimidines derived from DNA and RNA); and (d)
vitamin E as an antioxidant and stabilizer. These ingredients are present in a balanced
formulation tested experimentally to be optimal for the activity of fibroblasts and
keratinocytes. By being able to deliver such nutrients to the replicating keratinocytes located
at the base of the epidermis and to the fibroblasts of the dermis that synthesize macromolecules
such as collagen, elastin and glycosaminoglycans, we can restore the youthful physico-chemical
character of the skin. During the process of aging, the dermis becomes thinner and less hydrated
due to the loss of such essential structural macromolecules. This gives rise to a vicious circle
of events, which continues to impair the proper nutrition of the declining cell population.
Optimizing cell nutrition restores the function and biosynthetic and reproductive capacity of
such cells.

24. Document ID: US 5906202 A
Entry 24 of 29
File: USPT
May 25, 1999

DOCUMENT-IDENTIFIER: US 5906202 A
TITLE: Device and method for directing aerosolized mist to a specific area of the respiratory
tract

DEPR:
The methodology of the present invention is also particularly useful with respect to the delivery
of genetic material which, when delivered, expresses and provides a therapeutically effective
protein. For example, it is possible to create formulations containing plasmids which plasmids
include a gene construct which, when expressed, produces a protein which the patient is in need
of. The plasmids can be delivered by themselves or with a permeation enhancer. Naked genetic
material itself can be formulated and used in connection with the present invention. It is
particularly useful to deliver genetic material via the present invention in that it is not
desirable to deliver the genetic material to the outermost areas of the lungs where gas transfer
takes place--generations 17-23. Thus, by using the present invention it is possible to deliver
the genetic material to the central regions of the lung. When the genetic material is brought
into contact with the mucous membranes of the central regions of the lungs the material migrates
into cells where it is expressed and thereafter locally or systemically delivered to the patient.

25. Document ID: US 5879713 A
Entry 25 of 29
File: USPT
Mar 9, 1999

DOCUMENT-IDENTIFIER: US 5879713 A
TITLE: Targeted delivery via biodegradable polymers

BSPR:
Examples demonstrate delivery of DNA via a polymeric gel and encapsulated within liposomes which
are immobilized in polymeric gel. Immobilization of the DNA in the gel increases delivery
approximately 300%; immobilization of the DNA in a penetration enhancer, such as liposomes, which
are then immobilized in the polymeric gel increases the delivery approximately 600 to 700%. This
is measured based on luciferase expression and detection of Turner Light units.

26. Document ID: US 5859226 A
Entry 26 of 29
File: USPT
Jan 12, 1999

DOCUMENT-IDENTIFIER: US 5859226 A
TITLE: Polynucleotide decoys that inhibit MHC-II expression and uses thereof

DEPR:
If it is to be used in vivo, the polynucleotide decoy of the invention may be derivatized to include ligands and/or delivery vehicles which provide dispersion through the blood, targeting to specific cell types, or permit easier transit of cellular barriers. Thus, the polynucleotide decoys of the invention may be linked or combined with any targeting or delivery agent known in the art, including but not limited to, cell penetration enhancers, lipofectin, liposomes, dendrimers, DNA intercalators, and nanoparticles. In particular, nanoparticles for use in the delivery of the polynucleotide decoys of the invention are particles of less than about 50 nanometers diameter, nontoxic, non-antigenic, and comprised of albumin and surfactant, or iron as in the nanoparticle particle technology of SynGenix. In general the delivery vehicles used to target the polynucleotide decoys of the invention may further comprise any cell specific or general targeting agents known in the art, and will have a specific trapping efficiency to the target cells or organs of from about 5 to about 35%.

27. Document ID: US 5521061 A
Entry 27 of 29
File: USPT
May 28, 1996

DOCUMENT-IDENTIFIER: US 5521061 A
TITLE: Enhancement of probe signal in nucleic acid-mediated in-situ hybridization studies

DEPC:
The Effect of Permeation Enhancers on DNA Probe Signal in an In Situ Liquid Hybridization Assay

28. Document ID: US 4837026 A
Entry 28 of 29
File: USPT
Jun 6, 1989

DOCUMENT-IDENTIFIER: US 4837026 A
TITLE: Transdermal and systemic preparation and method

BSPR:
The following compounds, encompassed by general formula I of this invention are known in the literature. Compounds, 14 and 23-25 were evaluated for pungency [Rice et. a., J. Amer. Chem. Soc. 76,3730 (1954)]. Compounds 2-28 were evaluated for insect repellent activity [McGovern et. al., J. Ga. Entomol. Soc. 14,166 (1979); Alexander et al., J. Econ. Entomol., 56, 58 (1963); J. Chem. Eng. Data, 7,263 (1962); Davydova et al., Chem. Abstr., vol. 71, 122670j (1969); compounds 15 and 25 for antimicrobial activity [Novak et al., J. Amer. Oil Chem. Soc. 46,249 (1969); compounds 10-12 and 18 mimicking pepper constituents [Staudinger et. al., Ber., 56B, 699 (1923)]; compounds 29-32, 34 and 35, are known [Kikuchi et. al., Biochim. Biophys. Acta, 744,180 (1983)] as the substrates for the enzyme Proline Acylase. Compound 33 is known in the literature to possess plant growth regulating activity [Kider et. al., Agric. Biol. Chem., 40,1551, (1976)]; and compound 33 as a surface active agents for thermal denaturation of DNA [Tsuji, J. Amer. Oil Chem. So., 54,585 (1977)]. Compounds 44-53 to my knowledge are novel. The use of the compounds of the present invention as penetration enhancers is, however, novel and not predictable from the prior art.

29. Document ID: AU 9889880 A, FR 2766826 A1, WO 9907414 A1
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TITLE: New polypeptide including sequence from single antibody chain and able to penetrate a cell - used as vector for delivering attached components, e.g. nucleic acid or antigen, to cells, useful in gene therapy and vaccination

ABTX:
ADVANTAGE - (I) provide efficient delivery to cells (including to the nucleus), in complete medium and without requiring a toxic penetration enhancer. They are safer than known viral vectors and compared with antibody vectors are smaller, with a less complicated structure (specifically derived from one antibody chain only) and easier to make. (I) can penetrate a high proportion of human peripheral cells, particularly activated T lymphocytes.

Term	Documents
8 SAME 2	29

including document number